#### BEFORE INDEPENDANT HEARING COMMISSIONERS APPOINTED BY THE TIMARU DISTRICT COUNCIL

UNDER:	the Resource Management Act 1991		
IN THE MATTER OF:	Submissions and further submissions in relation to the Timaru Proposed		

**District Plan** 

#### STATEMENT OF EVIDENCE OF JAMES HARTLEY FRASER ON BEHALF OF WESTGARTH, CHAPMAN, BLACKLER ET AL (SUBMITTER NO. 200)

#### **HEARING STREAM E2: CULTURAL VALUES**

Dated: 23 January 2025

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#### INTRODUCTION

- 1. My full name is James Hartley Fraser.
- I hold a Bachelor of Commerce Agriculture, majoring in Valuation and Farm Management.
- 3. I am a Trustee and Beneficiary of the JH & FM Fraser Family Trust which owns a 90-ha property located at 228 Raincliff Road, Hazelburn. I am a Director of Sterndale Farm Limited which operates the sheep and stud angus breeding farming business on the property thereon.
- I am a member of the Limestone Group (*Westgarth, Chapman, Blackler et al.*submitter number 200 and further submitter number 269) that made an original submission and further submission on aspects of the Proposed Timaru District Plan (**Proposed Plan**) that relate to Sites and Areas of Significance to Māori (SASM).
- This statement of evidence is provided in support of those submissions. I address the following topics:
  - Background to our property and the basis for my interest in the Proposed Plan's approach to managing activities within SASM;
  - (b) My comments on the recommendations set out in Section 42A Officers Report in response to submissions on the SASM overlay and rules in the Proposed Plan, including my concerns in relation to:
    - (i) Regulatory inconsistency;
    - Lack of evidence to support a 250m setback for SASM rock art sites;
    - (iii) The implications of:
      - The Proposed Plan's approach to managing activities within SASM for the ongoing protection of rock art sites; and
      - (2) The proposed rules and overlays for my family's current and future farming business.

(c) The changes I seek from the Hearings Panel to address those concerns.

#### SUMMARY OF EVIDENCE

- Our family has lived and farmed continually within the Hazelburn and Totara Valley areas for over eighty years. We operate a sheep and stud angus breeding farming business on our property at 228 Raincliff Road.
- About 87% of our property is contained within SASM-9, Wāhi Tapu Opihi Rock Art Sites. The rock art sites to which that SASM relates are located on a limestone escarpment on our property, which we have fenced off from productive farmland.
- 8. We strongly empathise with the cultural values of Māori with respect to those sites. We have worked incredibly hard over the years as landowners and custodians to protect the sites for generations to come, in the absence of any regulatory setbacks or rules. Our work in that regard, and the high level of positive impact it has had on the rock art sites, was confirmed by the Māori Rock Art Trust's recent report that was commissioned at our request as part of the regional farming land use consent renewal process we went through last year.
- 9. In the fifty years that my family has farmed our property, we have never been approached by anyone wishing to view the rock art sites and adjacent areas. We were never approached to discuss the scheduling of those sites/areas in the Proposed Plan, or the implications that may have for the current and future use of our property.
- 10. I share the concerns of other members of the Limestone Group with respect to the process adopted by Timaru District Council in mapping SASM and developing the SASM provisions. While I acknowledge that the TDC's reporting officer, Ms Whyte, has recommended significant revisions to the Proposed Plan's SASM rules in response to submissions (which I accept), I still am concerned that:
  - (a) The extent of the SASM overlay on our property is excessive regulatory creep and is inconsistent with other existing regulations intended to protected such sites. There is no quantifiable basis for

utilising a 250m setback from the rock art sites to define SASM boundaries. I consider a 10m setback would be sufficient. This is greater than the existing fencing around the rock art on our property but would cover the risk of effects from future activities such as dust and erosion from earthworks.

- (b) Without such changes:
  - (i) The SASM overlay has the potential to devalue our property. I believe that is relevant to the Hearing Panel's consideration of submissions, as are the implications of unjustified regulatory restrictions on farming businesses and the costs landowners face in undertaking consultation and engagement in order to obtain resource consent for new activities in SASM under the Proposed Plan.
  - (ii) Future plan changes could introduce new rules with further restrictions that would greatly affect our property and farming business.
- 11. I support the additional changes requested by the Limestone Group's other witnesses and as outlined in the legal submissions that are to be presented at the hearing.

#### BACKGROUND

- 12. Our farm property is located in Totara Valley, 14km West of Pleasant Point. Our family has lived in Totara Valley for four generations. While various parts of the property have been sold and others purchased, we have farmed continuously here for over eighty years.
- 13. About 87% of our property at 228 Raincliff Rd is contained within SASM-9,Wāhi Tapu Opihi Rock Art Sites, as shown below:



- 14. SASM-9 also overlays an Outstanding Natural Feature (ONF-2), and Significant Natural Area (SNA 345b).
- 15. The photo of my property below is of the escarpment through to the cottage in the distance (top right of the photo). The SNA runs from the foreground to the end on the contiguous bluffs, near the central pine plantation. There are Māori rock art drawings on the broken rocks beyond this point, right through to behind the cottage.



 Our farming operation has worked extensively with interested parties given the presence of rock art on our property, our Land Use Consent (LUC) and Farm Environment Plan (FEP).

- 17. We irrigate and intensive winter graze on the property. We are compliant with Environment Canterbury's (ECan's) consent regulations holding a Land Use Consent (FLU) until 2029. During the FLU renewal process, the consent application and our recently audited FEP (which obtained an A Grade in the 2024 FEP Audit) was reviewed by Aoraki Environmental Consultancy Limited (AECL), who requested feedback from the Ngāi Tahu Māori Rock Art Trust (MRAT).
- 18. MRAT carried out a site visit to our property in April 2024. The site visit was attended by Amanda Symon (MRAT), and Shar Briden (Absolute Archaeology). The report produced by MRAT<sup>1</sup> is attached to my evidence and concluded that our current farming practices pose a low risk to rock art sites, as follows:

"The result of the assessment of risk that various land use activities will have on Māori Rock Art Sites on the Fraser's property is provided in Appendix 1. The impact of current activities is assessed as having a medium to low impact on the Māori Rock Art Sites and wider associated cultural values (archaeology, mahika kai, freshwater ecosystems) on the property. It is noted that current farming practices pose a low risk to the sites, and most issues identified relate to the management of the Significant Natural Area, Outstanding Natural Feature, and Bat Protection Area on the Property."

19. An assessment of positive impacts to Māori rock art sites on our property was also included in the MRAT report and is reproduced below, which includes an acknowledgement of our high level of compliance and empathy, which MRAT confirmed was providing a high level of positive impact on the rock art sites:<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> Response to Resource Consent Application CRC191398 – Fraser Property, Raincliff Road. Produced by Amanda Symon, Ngāi Tahu Māori Rock Art Trust, page 13.

<sup>&</sup>lt;sup>2</sup> Response to Resource Consent Application CRC191398 – Fraser Property, Raincliff Road. Produced by Amanda Symon, Ngāi Tahu Māori Rock Art Trust, page 13.

#### Assessment of positive impacts to Māori rock art sites on the Fraser property

Area of activity	Activity	Potential impact	Likelihood of Impact	Consequence	Positive Impact
Statutory and	SASM-9	The property is subject to a high number of statutory/regulatory	Almost certain	Major	High
regulatory	RAMA	mechanisms around natural and cultural values, including SASM-9			
mechanisms	SNA-345b	(wahi tapu) and RAMA specifically relating to rock art values on the			
	ONF-2	property. The landowner is knowledgeable and compliant in respect			
	Bat Protection	to these mechanisms, and management of values (note though,			
		comments above re rules relating to SNA and bat habitat).			
Farm Environmental	Detailed FEP, A-grade rating	The FEP audit reflects the landowner's high level of knowledge and	Almost certain	Major	High
Management Plan	at last audit in Feb 2024	motivation around all compliance areas; the landowner is actively			
		seeking input from the NTMRAT on the management of rock art			
		values via the FEP.			
Voluntary legal	NA – sites are not	The possibility of extending the nearby Heritage New Zealand Wahi			
mechanisms	covenanted	Tupuna registration on the adjacent Gould property was discussed			
		with the landowner in 2017, but not progressed at that time.			
Physical activities	Continued fine-tuning of	The landowner is highly motivated to improve farm efficiency	Almost certain	Major	High
	farming activities over the	(water, fertilizer, stock rates, farming practice), and knowledgeable			
	period of ownership	and compliant re the management of cultural and natural values on			
		the property.			
Relationships,	Strong positive relationship	The landowners have a longstanding relationship with the NTMRAT,	Almost certain	Major	High
knowledge, and	with NTMRAT, proactive in	have facilitated rock art recording, and have proactively requested			
expertise	protecting the sites on their	input into the management of the rock art values on the property.			
	property.	They are aware of the location of rock art sites and various farming			
		and other land use activities that could impact upon them.			

- 20. The costs involved in this FLU renewal process included:
  - (a) \$7,059.25 incl. GST in consultancy fees we incurred for the preparation of the consent renewal application and liaison with ECan, AECL and MRAT (including a \$2,875 deposit paid to ECan);
  - (b) \$10,536.88 paid to ECan for processing fees; and
  - Additional costs in relation to the preparation of our FEP (including \$650 excl. GST paid to AECL).
- 21. We are aware that the costs that we incurred in the engagement of AECL and MRAT for this application were minimised due to the work our consultants have undertaken with AECL to develop a robust process and framework for obtaining feedback on FEPs and FLU consent applications. This may not necessarily be the case for resource consent applications required under the Proposed Plan's SASM rules, and we are concerned about the uncertainty around the costs of consultation and engagement that may be required.
- 22. We strongly empathise with the cultural values of Māori with respect to the rock art sites. We have worked incredibly hard as landowners and custodians of the rock art to protect the sites for generations to come.
- 23. We spent approximately \$10,000.00 to fence off the rock art sites, plant natives above the limestone escarpment and fence off waterways and develop riparian planting. We did this all before regulations were introduced

in an effort to protect the rock art, the environment, and provide a sustainable family farming business.

- 24. I note there is no setback from the rock art for irrigation or any other restrictions stipulated in the FEP or the conditions of the FLU over and above the normal regulations that apply to heritage sites.
- 25. Interestingly, not once in the fifty years we have owned this particular property have we been approached by anyone wishing to view the rock art. The only people who have viewed the rock art have been those who have been paid to do so through consenting, weed control, and art surveying processes initiated by us. In comparison, each generation of Frasers since 1870 have returned to the Scottish Highlands to visit the tenant farm from whence they came, touched the remnants of the home (croft) and enjoyed the present owner's interest in our heritage. I emphasise that we have never been approached by anyone to view the Māori rock art on our property.

#### **OFFICER'S REPORT**

- 26. I have read the Section 42A Report and the Reporting Officer's recommended changes to the SASM overlays and plan provisions. I acknowledge the significant revisions that have been recommended by the Reporting Officer in response to concerns raised by submitters, including the Limestone Group.
- 27. I support the recommended changes to the rules, especially the deletion of the rules relating to subdivision and intensive farming.
- 28. However, I still have concerns about the extent of the SASM overlays proposed. I do not think that the mapping of the SASM overlays has been sufficiently addressed by the Reporting Officer in the Section 42A Report.
- 29. I am also concerned about regulatory inconsistency, the practical realities of the proposed SASM on my property having effects on my farming business, and the realities of establishing existing use rights.
- 30. I address these concerns in the following sections of my evidence.

#### Regulatory Inconsistency

- 31. Overbearing regulation is counterproductive to protecting the Rock Art. We have the Department of Conservation (**DoC**) spraying specific weeds on the escarpment in the proposed SASM overlay area by helicopter, but they do not want to spray gorse or blackberry or broom because they are considered nursery plants for natives. Contradictorily, we are regulated by ECan to spray spreading gorse.
- 32. Additionally, we are over-our-head in conflicting advice / regulations from DoC, TDC, ECan, and Rūnanga, who on one hand, advise us it is best practice to fence off the rock art and exclude stock which encourages the weeds to grow and spread, and then on the other hand, suggest that stock should not be excluded as they help suppress vegetation around the rock art sites.
- 33. The incoherent overlapping of regulatory rules of statutory bodies has created severe problems for us. We now have many questions, such as who will be responsible for the weed and pest control amongst all the interested parties? Should we fence or not? I also note the inconsistency of our mid-seventeenth century limestone heritage buildings having no setback under the PDP, even though they are protected under Heritage New Zealand Pouhere Taonga Act 2014 as this is deemed to be adequate. The SASM overlay creates yet another consideration for us, and we consider the extent of the overlay to be excessive regulatory creep.

#### Lack of evidence to support a 250m setback

34. As well as SASM-9, I also have a SNA and ONF located on my property. The different overlays and their extent is shown in the figures below:



SNA-345b B ONF-2 Hanging Rock

- 35. The rock art sites that are on my property are located close to the area that is already protected by rules associated with the SNA and ONF overlay, yet the extent of the SASM overlay is much larger and covers the majority of my property.
- 36. In the Section 42A Report, the Reporting Officer says:<sup>3</sup>

"I am aware that the use of a 300m buffer around rock art sites was also proposed in Plan Change 24 to the Mackenzie District Plan. The decision on that plan change, having considered the rationale for the use of 300m, concluded that a 250m buffer was more appropriate, in terms of matters regulated by the district plan, rather than the regional plan. I therefore consider that the same buffer should be used in the PDP, i.e. SASM-8 and SASM-9 should be reduced by 50m."

- 37. The landholder deserves a better explanation of the reason for the proposed amended 250m setback, than it is simply what Mackenzie or other councils have done to protect the effects of activities on SASM.
- 38. The landscape and values in the Timaru and Mackenzie District are very different. What quantifiable basis is there to the setback in relation to our property? It should be recognised that the scale and level of intensity of

<sup>&</sup>lt;sup>3</sup> Section 42A Report, at [8.2.26].

farming in the Mackenzie is generally different to Timaru. And, if the Mackenzie District Plan Change was anything like what we experienced at the beginning of the plan development process in the Proposed District, farmers in the Mackenzie may not have been aware, as we weren't, of the proposal to have such an extensive SASM overlay, or that they did not have the ability to join a group such as the Limestone Group to afford to go through the hearings process and voice their concerns.

- 39. The Mackenzie District Plan setback is not a justification for blindly using it in the Timaru District.
- 40. I urge the Hearings Panel to take an independent line on the setting of the SASM overlay that is based on evidence on the effects of activities on rock art sites, rather than falling in with other District Councils because they have set a particular setback. That is not democracy at work or showing respect for the legitimate concerns raised by submitters against the proposals.
- 41. In my opinion, a 10m setback would be sufficient. The 10m setback is greater than existing fencing around the rock art on our property but will cover the risk of dust from new cultivation and erosion from any future stock water works.

#### Diminishing landowners' efforts to protect rock art sites

- 42. As I have explained above, we have contributed significant time, effort, and money to protecting the rock art sites on our property.
- 43. I have been misled over time that the rock art would not be used to encumber use of my property. It has now become clear that because of the Proposed Plan, the SASM overlay will affect the value of our property. We are deeply cautious of the extensive overlays being applied across nearly all of our property without consultation or consideration as to how this would affect our property, our business, and our livelihood.

#### Impact of the proposed SASM rules and overlays

44. Because the proposed SASM overlay extends across nearly all of our property, the following revised rules (as recommended by the Reporting Officer) will control activities on our property:

- (a) SASM-R1: Earthworks, not including quarrying and mining.
- (b) SASM-R5: Mining and quarrying activities.
- (c) SASM-R8: Woodlots or plantation forestry.
- 45. The practical reality of these rules applying to our property as we use it currently, is we will require a resource consent to:
  - (a) Harvest existing forestry on our property;
  - (b) Plant new areas of forestry across any areas greater than 1ha;
  - (c) Develop viticulture on the property; and
  - (d) Build accommodation pods.
- 46. On the face of it, the revised rules may not seem so bad. However, we are deeply concerned that if the extent of the overlay is not reduced, future plan changes will introduce SASM rules that will greatly affect our property. We only have to look at the notified plan to see how this might play out.
- 47. Had the revisions not been recommended, the notified version (which I add took legal effect on public notification of the Proposed Plan) would require us to apply for a resource consent for:
  - (a) The following activities classified as restricted discretionary activities:
    - All earthworks, including emergency works, such as fire protection works;
    - (ii) Alterations to our home, such as installing a pergola or a deck, and for any other building or structure such as a garden shed;
    - (iii) Clear indigenous vegetation ourselves;
  - (b) The following activities classified as non-complying activities:
    - (i) Mining and quarrying;
    - (ii) Intensively farm stock;

- (iii) To host our children's weddings at our home;
- (iv) Subdivision; and
- (v) The planting of or harvest of shelterbelts, woodlots or plantation forestry.
- 48. We are aware we could rely on existing use rights to avoid the need to apply resource consent to enable our current farming land use activities to continue. However, as farming is a dynamic business, the practical realities of establishing existing use rights mean that we would have been severely impacted by the rules in the notified plan (i.e., if the Reporting Officer's recommended revisions are not accepted by the Hearings Panel).
- 49. The need to apply for resource consent under the Proposed Plan to protect rock art sites from the effects of the above activities comes at an additional cost to our farming business, when we are already compliant with other regulations that manage such effects.
- 50. The only way we can ensure our farming business and our property is protected in the future from future plan changes introducing more stringent SASM rules, whilst ensuring we continue to protect the rock art sites, is to reduce the extent of the SASM overlay on our property.

### **REQUEST TO HEARINGS PANEL**

- 51. I request that the extent of all SASM overlays is reduced. I consider a setback of 10m from rock art sites is appropriate to ensure that I can continue to protect the sites as best I can, whilst also protecting my interests in my property and my farming business.
- 52. I otherwise support the changes to the SASM rules that have been recommended by the Reporting Officer, subject to the requests outlined in the evidence of other members of the Limestone Group and the Limestone Group's legal submissions.

#### **James Hartley Fraser**

23 January 2025

# Ngāi Tahu Māori Rock Art Trust

## **Response to Resource Consent Application CRC191398** Fraser Property, Raincliff Road

Amanda Symon, Ngāi Tahu Māori Rock Art Trust

## Background

Aoraki Environmental Consultancy requested feedback from the Ngāi Tahu Māori Rock Art Trust on a resource consent application renewal for farming land use, for a property owned by Fiona, James and Robert Fraser. The resource consent application was completed by Nicole Philips, for Irricon Environmental Solutions, and includes a recently audited Farm Environment Plan. A group of 16 Māori rock art sites, and associated Rock Art Management Areas, are located on one of the farm blocks, at 332 Raincliff Road, Tōtara Valley. This report is focused solely on that farm block.

### Site visit

A site visit was carried out to the Fraser's property on the 23<sup>rd</sup> of April 2024. The visit was attended by Amanda Symon, Ngāi Tahu Māori Rock Art Trust, and Shar Briden, Absolute Archaeology. The visit involved a meeting with Rob Fraser, to discuss farming activities on the property, followed by an inspection of five of the rock art sites on the property.

The primary objective of the site visit was to confirm the location of current farming and irrigation activities in relation to the Māori rock art sites and to determine any potential impacts to the sites from all aspects of the proposed activities. A secondary objective was to check the condition of the sites against photographic recordings made in 2013, as a basis to assess any changes in condition over the last 11 years.

## Location of Māori rock art sites

A total of sixteen Māori rock art sites are located on the property. Thirteen of the sites were recorded in the summer of 1960-61, during a field survey carried out by Tony Fomison, commissioned by the New Zealand Historic Places Trust. Three further Māori rock art sites were identified as a result of a systematic survey of the limestone outcrops on the property in 2013. This work was carried out as part of the South Island Māori Rock Art Project (SIMRAP), a long-term rock art survey and recording project established by Ngāi Tahu in 1990.

The 13 sites recorded by Tony Fomison are listed in the New Zealand Archaeological Association (NZAA) Site Recording Scheme, based on hand drawn maps created at the time. Earlier records of the sites (sketches, photographs and paintings), made by Roger Duff and Theo Schoon in the 1940s, are held in the archival collections of Canterbury Museum.

For the purposes of this report, the SIMRAP recordings are used as they provide the most comprehensive, accurate, and up to date information on the location and condition of the Māori rock art sites on the property.



**Figure 1:** The 16 Māori rock art sites on the Fraser property, 2 which could not be relocated (in red).

SIMRAP	NZAA ID	When recorded	Revisited April 2024
21.27		Recorded in 2013	No - fragmentary
21.28	J38/130	Rock art site not relocated	No - gone
21.29	J38/118	Rock art site not relocated	No - gone
21.30	J38/119	Recorded in 1960-61	No -
21.31	J38/120	Recorded in 1960-61	Yes
21.32	J38/121	Recorded in 1960-61	No
21.33	J38/122	Recorded in 1960-61	No
21.34	J38/123	Recorded in 1960-61	No
21.35	J38/124	Recorded in 1960-61	Yes
21.36	J38/125	Recorded in 1960-61	Yes
21.37		Recorded in 2013	No
21.38		Recorded in 2013	No
21.39	J38/126	Recorded in 1960-61	Yes
21.40	J38/127	Recorded in 1960-61	No
21.41	J38/128	Recorded in 1960-61	No
21.42	J38/129	Recorded in 1960-61	Yes

**Table 1:** SIMRAP and NZAA site references

### Wider context of rock art sites

Figure 2, below, shows the Māori rock art sites on the Fraser property in their wider context, with another 26 sites present on the same limestone massif extending across the adjoining property.



Figure 2: Māori rock art sites located on the wider limestone massif.

At a wider scale, there are many other significant Māori rock art site complexes nearby, flanking the Ōpihi and Ōpuha Rivers and their tributaries. Beyond this, SIMRAP has recorded 412 Māori rock art sites in South Canterbury and 286 in North Otago, with the Aoraki region containing the highest density of rock art sites in New Zealand. In total, 761 Māori rock art sites have been recorded throughout Te Waipounamu (South Island) by SIMRAP, from as far north as Kaikoura, and as far south as Fiordland.



Figure 3: The wider context of Māori rock art sites in the area.

## Wider cultural values associated with Māori rock art sites

Tribal history records that the Ōpihi River is of immense significance to the local Kāi Tahu hapū of Kāti Huirapa, both as a travel route and as a mahika kai (resource gathering area). The renowned Arowhenua forest and cultivations stood at the junction of the Ōpihi River and Te Umu Kaha (the Temuka River). Several kāika (settlements) were located near the lower reaches of the Ōpihi, sustained by the river's rich food supply. Foods gathered from the river included tuna (eels), inaka (whitebait), kōkopu (native trout), upokororo (grayling), kanakana (lampreys), pātiki (flounder), aua (yellow-eyed mullet), paraki (endemic smelt), panako (fish sp.) and pipiki (fish sp.). The Ōpihi was the principal travel route from the Arowhenua region to Te Manahuna (the Mackenzie Basin), and this is reflected in the high density of rock art sites in the wider Ōpihi

### - Ōpuha catchment.

The Ōpūaha (Opuha) River was a place where tuna and taramea (speargrass) were gathered. To the northeast, Te Kākaho (the Kakahu River) was known as a mahika kai were tuna, inaka, pānako (fern), tutu berries, aruhe (bracken fern root) and kōrari (flax flower heads) were gathered. The limestone outcrops at Kākahu are also a well-known source of flint, used to manufacture stone tools - sharp 'blades' made from flakes of this stone.

Evidence of resource gathering activities is reflected in the archaeological remains in the shelter floors of many Māori rock art sites in the wider area. Kākahi (freshwater mussel), bird bone and charcoal were exposed in the shelter floor when stock fencing was installed at a rock art site at Limestone Valley Road in 2013; tuna (eel) bone, moa eggshell, moa bone, hāngi stones and flaked flint tools were excavated during the installation of a swale drain at a rock art site in Three Mile Bush Road in 2014; and kōreke (quail), moa, and tuna bones were excavated from the publicly accessible rock art sites at Raincliff reserve during a path upgrade in 2018.

While the traditional practices of rock art and mahika kai overlap geospatially, it is not currently possible to definitively determine if the two practices were carried out simultaneously, as Māori rock art has yet to be successfully dated, and few carbon dates exist for the archaeological deposits recovered from shelter floors. Regardless of this, it can be said that archaeological, mahika kai, and rock art values often coincide in the landscape, with rock shelters at the very least providing convenient resting points on mahika kai journeys, and likely of significant cultural and spiritual importance to mana whenua over many centuries.

Rock art sites in limestone formations are almost always associated with freshwater ecosystems, including nearby rivers, streams, wetlands, and springs. These provided water, food, and transport; in addition, wai māori (fresh water) was intimately associated with the cultural and spiritual practices of mana whenua. For this reason, nearby freshwater ecosystems are also considered as part of the broader cultural landscape and values associated with Māori rock art sites.

It is likely that Tōtara Valley encompassed a former course of the Ōpihi River in ancient times, and a large wetland, containing raupō (bulrush) and harakeke (flax) extened throughout the valley, within living memory. Tomos are present on top of the main limestone outcrop on the Fraser property, linked to ephemeral springs at its base, where the rock art sites are located. The ecosystems present in the past would have been rich in resources, including freshwater species, birds, and plants. The property's location on a significant travel route, in an area rich in resources, suggests that it was an area of regular activity in the past – also reflected in the high number of rock art sites present here, and in the wider area.

### Statutory protection of Māori rock art sites

Māori Rock Art Sites are protected under the Heritage New Zealand Pouhere Taonga Act 2014. This legislation provides protection not only for Māori rock art sites, but also for any associated archaeological remains found in the ground around them. Under this legislation, it is an offence to damage, destroy or modify rock art sites or archaeological remains without an authority from Heritage New Zealand.

Māori Rock Art Sites are also protected under the Resource Management Act (RMA). The RMA requires councils to recognise and provide for, as matters of national importance, the relationship of Māori to their ancestral lands, water, sites, wāhi tapu, and other taonga, and the protection of historic heritage from inappropriate subdivision, use and development. These values are identified as Sites and Areas of Significance to Māori (SASM) in local District Plans, which also set out the activities that can be undertaken as a permitted activity in these areas, and those activities that require a resource consent.

Under the Canterbury Land and Water Regional Plan (LWRP), landowners have a responsibility to protect Māori rock art sites and the wider freshwater ecosystems and mahika kai values associated with them. Considering the impacts of farming activities on these values is a critical part of the Farm Environment Plan (FEP) audit process in the LWRP. The LWRP has identified Rock Art Management Areas for this purpose.

The Fraser property is subject to a high number of statutory mechanisms focused on the natural and cultural values of the area. These include SASM-9 (a wahi tapu, relating to the rock art sites); RAMA, covering much of the property; an Outstanding Natural Feature (ONF-2, relating to the limestone outcrops); a Significant Natural Area (SNA-345b, relating to the limestone ecosystems), and a bat protection zone (relating to a local colony of long-tailed bats).

### Impacts to Māori rock art and associated cultural values

Māori rock art can be damaged or destroyed by direct or indirect impacts to the rock art itself, or to the rock outcrops where it is located. Therefore, the management and protection of rock art, includes the management and protection of the wider rock formation on which it is placed. This encompasses not only the rock art itself and the immediate area of rock that it is applied to, but also any part of the wider rock formation that, if affected by direct or indirect impacts, could cause the damage or destruction of the rock art.

In Te Waipounamu (South Island), rock art is most frequently applied to limestone overhangs, outcrops, and boulders, with their smooth pale surfaces providing an excellent canvas for the art. This makes the sites particularly vulnerable, as limestone is a soft rock, which is easily damaged by direct physical impacts. Limestone is also porous, meaning that moisture can travel through it, making it extremely susceptible to damage from changes in the hydrology of the wider landscape surrounding it. These changes can manifest on the outer surfaces of the rock, with flaking, erosion, and salt encrustation causing damage to rock art; they can also result in large scale destabilisation of the wider limestone face or outcrop containing the art.

Research undertaken by the Ngāi Tahu Māori Rock Art Trust demonstrates that changes in hydrology within 300 metres of a rock art site can cause damage to the rock art and limestone surface, and the associated mahika kai and freshwater ecosystems. This research formed the basis of the development of the Rock Art Management Areas throughout the OTOP water zone. Rock art sites, and associated mahika kai and freshwater ecosystems, are sensitive to small changes in:

- the local groundwater environment, i.e., changes in water table height.
- the local microclimate, i.e., increased air moisture and irrigation spray drift.
- local drainage systems, i.e., diversions, new channels, and ponding.
- an increase of the saturated weight of limestone above an overhang or cave.
- the water chemistry of natural seepages onto the rock surface and into freshwater ecosystems.

### Discussion with the landowner

Rob Fraser, one of the landowners, met us on site and answered questions about farming activities that had the potential to impact on the rock art sites on the property. These included irrigation methods, frequency and offsets; fertilizer application; cultivations; stocking rates and fencing; critical source areas; freshwater resources and their management; plans for biodiversity restoration; and any significant changes in farm operations over the last 10 years.

It was clear from the discussion that farming activities were well managed, with a focus on efficient use of all resources, and social and environmental sustainability. This was also reflected in the Farm Environment Plan for the property, which received an A-grade audit in February 2024. Of particular note was the limited use of irrigation on the property, as changes in hydrology have the greatest potential to cause negative impacts to the rock art sites.

### **Results of the site visit**

Five of the 16 Māori rock art sites on the property were inspected as part of the site visit on the 23<sup>rd</sup> of April 2024. The sample of sites were chosen based on several factors, including ease of relocation, that they contained multiple clearly visible figures, and they were located on outcropping limestone rather than detached boulders (the latter are less susceptible to changes in wider site hydrology than the outcrops themselves).

During the site visit, potential impacts to each site were considered: the overall stability of the outcrop; the face on which the art was applied; the individual rock art figures; archaeological values potentially present in the ground at the base of the outcrop; associated mahika kai and freshwater values.

Four main issues were identified in respect to the management and protection of the rock art sites:

- large macrocarpa trees growing on the top of limestone outcrops near rock art sites
- smaller shrubs and trees growing in or against limestone outcrops near rock art sites
- blackberry impeding access to some sites for monitoring and management purposes
- rank grass within the SNA presenting a fire risk to nearby rock art sites

It should be emphasised that none of the management issues identified above are directly caused by the farming activities being carried out on the property, rather, they are related to the management of vegetation within Significant Natural Area, Outstanding Natural Feature and Bat Protection Area. It is noted that consent is required from Council for clearance of areas of indigenous vegetation or habitat within the SNA. Clearance includes burning, track construction, spraying with herbicides and over-planting.

### Large macrocarpa trees growing on top of outcrops

The site visit started at the southern end of the property, at site 21.42 behind the house. It was noted that many large macrocarpa trees were growing close to, or on top of, the limestone outcrops at the southern end of the property. While these trees provide excellent habitat for roosting bats, they also have the potential to cause damage to rock art sites. When growing on top of limestone outcrops, their roots can penetrate the limestone, causing root-jacking – where the limestone is split, destabilising the site and forming new flow paths for water in and around the outcrop. Large trees can also shade the sites, providing optimal conditions for the growth and moss or algae.



Figure 4: a large macrocarpa growing on the outcrop adjacent to rock art site 21.39

### Smaller shrubs and trees growing in or against limestone outcrops

Vegetation growing up against art-bearing surfaces has the potential to damage rock art in the following ways: by rubbing directly against the art; by shading the art, changing the microclimate to one more favourable for the growth of moss and algae; by depositing vegetation on horizontal surfaces, where it decays, providing optimal conditions for the growth of more plant species.

At site 21.36 the native vine, pōhuehue (muhlenbekia) was growing upward over art-bearing surfaces at the south end of the site. The vine was shading the a was shading the art, and an algal growth was spreading behind it. In addition, a mingimingi (coprosma propinqua) shrub was

growing in a fissure in the outcrop at the centre of the site, with its roots causing the limestone to split and spall off, and it branches rubbing against several rock drawings. As the vegetation was damaging the rock art, it was pruned back during the site visit.



Figure 5: Pohuehue growing up onto art-bearing surfaces at site 21.36.



Figure 6: Mingimingi (coprosma propinqua) growing out from a crack in the outcrop face.



Figure 7: Site 21.36 after the vegetation damaging the rock art was removed.

Blackberry impeding access to the sites for monitoring and management



Figure 8: Blackberry impeding site access at site 21.31.

Rank grass presenting a fire risk within the SNA area



Figure 9: Rank grass growing at the southern end of the SNA.

### Results of the condition assessment of rock art

A comprehensive suite of photographs was taken at each of the five sites inspected during the site visit to the property. These were later compared to high resolution images from the same sites, taken in 2013. Analysis included a comparison of the extent of areas of algal growth, moss, particulate, seepage, salt bloom, flaking and erosion, and fading of the pigments.

Overall, analysis confirmed that there has been no significant change in the condition of the figures photographed over the last 11 years. However, a comparison of photographs of the wider areas surrounding the sites shows that the growth of vegetation (both indigenous and exotic) within the Significant Natural Area has the potential to negatively impact on some of the sites.

## Conclusion and recommendations

The cultural values on the Fraser property are deemed to be high, including the following:

- iwi history of ara tawhito / travel routes (Opihi and Opuha Rivers) nearby
- iwi history of mahika kai / resource gathering areas nearby
- other significant Māori rock art site complexes nearby
- the high number of rock art sites (16) on the property
- the potential for archaeological deposits to be present in rock shelter floors
- the presence of the associated freshwater ecosystems (tomo, ephemeral springs, watercourses, remnant wetlands)

A formal risk assessment framework for Māori rock art sites was developed by Ngāi Tahu Māori Rock Art Trust in 2018. The framework is based on a matrix which identifies the principal attributes of Māori rock art sites and describes the potential impacts of activities which alter the local hydrological and physical environment around them and pose a risk to the integrity of the sites and other associated cultural values. Identification of the level of risk or benefit presented by each activity is calculated using a classic risk assessment matrix where risk = severity x likelihood.

The results of the assessment of risk that various land use activities will have on the Māori rock art sites on the Fraser's property is provided in Appendix 1. The impact of current activities is assessed as having a medium to low impact on the Māori rock art sites and wider associated cultural values (archaeology, mahika kai, freshwater ecosystems) on the property. It is noted that current farming practices pose a low risk to the sites, and most issues identified relate to the management of the Significant Natural Area, Outstanding Natural Feature and Bat Protection Area on the property. Potential areas of risk include:

- the growth of large macrocarpa trees on the top of the outcrop above the Māori rock art sites with roots penetrating the limestone.
- small trees and shrubs growing in cracks in the limestone near art bearing surfaces, or adjacent to art-bearing surfaces, with potential to damage the outcrop and / or the rock art as they mature.
- blackberry impeding access to some sites for monitoring and management purposes.
- the fire risk posed by rank grass growing within the SNA area.

Recommendations to mitigate these risks, and other actions that would support the protection and management of Māori rock art and wider cultural values on the property, are as follows:

- A meeting between the landowner, and Timaru District Council and Ngai Tahu Māori Rock Art Trust representatives, should be convened on site to discuss how the rock art values within the SNA, ONF and bat protection areas are best managed, alongside those of indigenous biodiversity.
- The Ngāi Tahu Māori Rock Art Trust will support the landowners to manage the rock art values on their property by providing maps and detailed photographic records for all the sites on the property, and input into the rock art section of the Farm Environment Plan.

### References

ArchSite: New Zealand Archaeological Association Site Recording Database <u>https://archsite.eaglegis.co.nz</u>

Gyopari, M., A. Symon, and G. Tipa. 2018. Guideline for implementing a land-based taonga risk and vulnerability assessment in the context of freshwater environments: Māori Rock Art.

Gyopari M., A. Symon, and G. Tipa. 2019. Māori rock art and associated freshwater taonga protection: A sensitivity-based knowledge convergence approach.

Kā Huru Manu Ngāi Tahu Atlas http://www.kahurumanu.co.nz/atlas

South Island Māori Rock Art Project (SIMRAP) archive. Ngāi Tahu Māori Rock Art Trust. Sites 21.27 – 21.42.

Component of rock art site	Activity of concern	Potential impact	Likelihood of Impact	Consequence	Risk
Overall outcrop and rock face condition & stability	Mature macrocarpa trees are growing on top of the outcrop, or adjacent to, a number of rock art sites.	The roots of large trees can penetrate the limestone outcrop, causing root-jacking (where roots cause fracture planes in the rock, causing rock to spall off, destabilizing the outcrop, and creating a route for water to move through the limestone). Noted that mature macrocarpa trees provide good bat roosting habitat and this needs to be discussed with TDC in relation to rock art site management.	Possible	Severe	High
	Vegetation is growing in cracks in the rock face and adjacent to art bearing surfaces.	Vegetation can rub against the art, or grow to shade the site, providing favourable conditions for moss and algae growth on art bearing surfaces. As the vegetation grows, its roots can penetrate the limestone causing fracture planes and routes for water to move through the limestone. Noted that the removal of indigenous vegetation within the SNA requires council consent and needs to be discussed with TDC in relation to rock art site management.	Possible	Major	Medium
Rock art panel integrity	Rank grass growing around rock art sites	Rank grass poses a fire risk to rock art sites, with extreme heat having the potential to destroy pigments and to cause rock surfaces to spall off. Noted that the management of vegetation within the SNA needs to be discussed with TDC in relation to rock art site management.	Rare	Severe	Low
Stock impacts	NA – stock excluded from the sites	Possible, but highly unlikely, that stock could access the rock art sites on the property.	Rare	Minor	Low
Safety/access	Large area of blackberry growing near one of the sites visited.	Blackberry may impede access to the sites for monitoring and management purposes; it can also cause damage if rubbing against art bearing surfaces. Noted that the management of weed species within the SNA needs to be discussed with TDC in relation to rock art site management.	Possible	Minor	Low
Wāhi tūpuna freshwater environments	NA – freshwater environments are fenced, and riparian planting is underway.				
Disturbance of other mana whenua values	NA – stock excluded from areas of potential archaeological sites (shelter floors)				

## Assessment of potential risks to Māori rock art sites on the Fraser property

## Assessment of positive impacts to Māori rock art sites on the Fraser property

Area of activity	Activity	Potential impact	Likelihood of Impact	Consequence	Positive Impact
Statutory and regulatory mechanisms	SASM-9 RAMA SNA-345b ONF-2 Bat Protection	The property is subject to a high number of statutory/regulatory mechanisms around natural and cultural values, including SASM-9 (wahi tapu) and RAMA specifically relating to rock art values on the property. The landowner is knowledgeable and compliant in respect to these mechanisms, and management of values (note though, comments above re rules relating to SNA and bat habitat).	Almost certain	Major	High
Farm Environmental Management Plan	Detailed FEP, A-grade rating at last audit in Feb 2024	The FEP audit reflects the landowner's high level of knowledge and motivation around all compliance areas; the landowner is actively seeking input from the NTMRAT on the management of rock art values via the FEP.	Almost certain	Major	High
Voluntary legal mechanisms	NA – sites are not covenanted	The possibility of extending the nearby Heritage New Zealand Wahi Tupuna registration on the adjacent Gould property was discussed with the landowner in 2017, but not progressed at that time.			
Physical activities	Continued fine-tuning of farming activities over the period of ownership	The landowner is highly motivated to improve farm efficiency (water, fertilizer, stock rates, farming practice), and knowledgeable and compliant re the management of cultural and natural values on the property.	Almost certain	Major	High
Relationships, knowledge, and expertise	Strong positive relationship with NTMRAT, proactive in protecting the sites on their property.	The landowners have a longstanding relationship with the NTMRAT, have facilitated rock art recording, and have proactively requested input into the management of the rock art values on the property. They are aware of the location of rock art sites and various farming and other land use activities that could impact upon them.	Almost certain	Major	High