

— Plan of the —  
**HERMITAGE ESTATE.**

Being a subdivision of Blocks XI, XIII, & XIV, North Molyneux Dist & Block I, Hillend District.

The Estate of the late Archibald Anderson.

— Scale, 5 chains = 1 inch. —

Walter Peterson, Licensed Surveyor, July, 1911.

I. HILLEND DISTRICT.

NORTH MOLYNEUX DIST



XXIV Balclutha.



**New Zealand  
Heritage Properties Ltd**  
Investing In Our Heritage

# Mount Cooe Landfill, Balclutha

## An Archaeological Assessment

Report Prepared for the Clutha District Council c/- WSP  
Authors: India Gillespie, Victoria Ross, and Claire Thorrold  
Reviewed by: Dr Naomi Woods

# Mount Cooee Landfill, Balclutha

## An Archaeological Assessment

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### Project Details

Archaeological Site No.	n/a
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Client	Clutha District Council c/- WSP
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### Document Control

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Cover Photo: Paterson, N. (1911). Plan of the Hermitage Estate [DP 2254]. DP 2254: LINZ.

## Executive Summary

The Clutha District Council (CDC) are proposing to extend the existing landfill area at the Mount Cooee Landfill on Kaitangata Highway, Balclutha (Lots 1 and 2 DP 12203; and Part Lot 61 DP 2254). New Zealand Heritage Properties Ltd (NZHP) has been commissioned by WSP on behalf of the CDC to undertake an archaeological assessment of the Mount Cooee Landfill to determine the requirement for an archaeological authority under the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA 2014).

The project area is located adjacent to the Mata-au, on the eastern fringes of what is now the Balclutha township. However, the wider landscape was utilised for various lifeways activities by Māori prior to, and after, the arrival of Pākehā to the area. From 1858, the project area formed part of the Hermitage Estate, which was owned by enterprising farmer and businessman, Archibald Anderson. Following Anderson's death in 1910, the Hermitage Estate was subdivided, and the project area became the site of various small farms and residences. In 1970, the project area was transferred to the CDC in 1970 and subsequently became the Mount Cooee Landfill.

The project area is defined as the Mount Cooee Landfill, Balclutha (Lots 1 and 2 DP 12203; and Part Lot 61 DP 2254), encompassing three land parcels, and a summary of the project area is provided in Table 1-1. The project area falls within the territorial control of the CDC, with no parts of the project area scheduled on the CDC District Plan. There are currently no archaeological sites recorded within the project area, and no previous archaeological authorities have been applied for in this specific location. While the project area is not included within any list entries on the New Zealand Heritage List/Rārangi Kōrero, the location is immediately adjacent to the Blair Railway Bridge that crosses Kaitangata Highway, and is recorded as List No. 5207, a Category 2 Historic Place. The location has no reserve status, covenant, or heritage orders, and is not included within a customary marine title. While the location is not within a statutory acknowledgment area, it is immediately adjacent to the Mata-au (Clutha River) which has been given statutory acknowledgement for cultural, spiritual, historic, and traditional association for Kāi Tahu.

This assessment has determined that there are no clear archaeological remains or features within the proposed works area. A small group of introduced trees is present at the top of a small gully at the southeast of the proposed expansion area; while there are no clear archaeological remains visible on the surface within the trees, there is the potential for subsurface remains in this area. A potential pre-1900 building and associated features are located at the south of the property, outside the current proposed expansion. An area at the centre of the property, recently cleared, was the former location of a potential pre-1900 cottage, and there is potential for subsurface archaeological remains in this area as well.

As a result, this assessment has concluded there is no reasonable cause to suspect that an archaeological site, as defined by the HNZPTA 2014, is within the proposed work area. As such, NZHP recommends that planning for an archaeological authority as per the HNZPTA 2014 is not required. However, works must operate under an Accidental Discovery Protocol (**Error! Reference source not found.**), which should be supplied to all contractors involved in earthworks. Should future works be proposed for the location of the former cottage, or surrounding the stable, NZHP would recommend an archaeological authority be applied for due to the potential for these sites to be pre-1900.

## Abbreviations

Abbreviation	Definition
CDC	Clutha District Council
CT	Certificate of Title
HNZPT	Heritage New Zealand Pouhere Taonga
HNZPTA 2014	Heritage New Zealand Pouhere Taonga Act 2014
NZAA	New Zealand Archaeological Association
NZHP	New Zealand Heritage Properties Limited
RMA 1991	Resource Management Act 1991

## Glossary

The following terms were sourced from the Kāi Tahu Ki Otago Natural Resources Management Plan (Kāi Tahu Ki Otago, 2005) and Heritage New Zealand Pouhere Taonga (HNZPT, 2014).

Te Reo Māori	English
Hapū	Sub-tribe, extended whānau
Iwi	Tribe
Kāi Tahu ki Otago	The four Papatipu Rūnaka and associated whānau and rōpū of the Otago Region
Kāika/Kaik/Kāinga	Settlement, place of residence
Karakia	Prayer, incantation
Kaumatua	Respected elder
Kōiwi / kōiwi	Human remains
Mahika kai/Mahinga kai	Places where food is produced or procured
Manawhenua	Those who exercise customary authority or rakātirataka
Papatipu	Original/traditional Māori land
Rakātira/Rangatira	Chief
Rakātirataka/Rangatiratanga	Chieftainship, decision-making rights
Rohe	Boundary
Rōpū	Group
Rūnaka/Rūnanga	Local representative group or community system of representation
Takata whenua/Tangata whenua	The iwi or hapū that holds mana whenua in a particular place
Takiwā	Area, region, district
Taoka/Taonga	Treasured object
Tapu	Sacred
Tikaka/Tikanga	Lore, customary values and practices
Tūpuna/Tipuna	Ancestor
Umu	Earth oven
Umu-tī	Earth oven used for cooking cabbage tree (tī)
Urupā	Burial place
Wāhi Tapu	Places sacred to takata whenua
Whakapapa	Genealogy
Whānau	Family

## Acknowledgements

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- Tania Richardson
- Aileen Crew

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# 1 Introduction

The Clutha District Council (CDC) are proposing to extend the existing landfill area at the Mount Cooee Landfill on Kaitangata Highway, Balclutha (Lots 1 and 2 DP 12203; and Part Lot 61 DP 2254). New Zealand Heritage Properties Ltd (NZHP) has been commissioned by WSP on behalf of the CDC to undertake an archaeological assessment of the Mount Cooee Landfill to determine the requirement for an archaeological authority under the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA 2014).

This archaeological assessment documents the history of the project area to determine if there are any archaeological requirements for development as per the HNZPTA 2014. The project area is located adjacent to the Mata-au, on the eastern fringes of what is now the Balclutha township. However, the wider landscape was utilised for various lifeways activities by Māori prior to, and after, the arrival of Pākehā to the area. From 1858, the project area formed part of the Hermitage Estate, which was owned by enterprising farmer and businessman, Archibald Anderson. Following Anderson's death in 1910, the Hermitage Estate was subdivided, and the project area became the site of various small farms and residences. In 1970, the project area was transferred to the CDC in 1970 and subsequently became the Mount Cooee Landfill.

The assessment has demonstrated that there no reasonable cause to suspect that an archaeological site, as defined by the HNZPTA 2014, is within the project area. As such, NZHP recommends that planning for an archaeological authority as per the HNZPTA 2014 is not required. However, works must operate under an Accidental Discovery Protocol (**Error! Reference source not found.**), which should be supplied to all contractors involved in earthworks.

## 1.1 Project Area

The project area is defined as the Mount Cooee Landfill, Balclutha (Lots 1 and 2 DP 12203; and Part Lot 61 DP 2254), encompassing three land parcels, and a summary of the project area is provided in Table 1-1. The project area falls within the territorial control of the CDC, with no parts of the project area scheduled on the CDC District Plan. There are currently no archaeological sites recorded within the project area, and no previous archaeological authorities have been applied for in this specific location. While the project area is not included within any list entries on the New Zealand Heritage List/Rārangi Kōrero, the location is immediately adjacent to the Blair Railway Bridge that crosses Kaitangata Highway, and is recorded as List No. 5207, a Category 2 Historic Place. The location has no reserve status, covenant, or heritage orders, and is not included within a customary marine title. While the location is not within a statutory acknowledgment area, it is immediately adjacent to the Mata-au (Clutha River) which has been given statutory acknowledgement for cultural, spiritual, historic, and traditional association for Kāi Tahu.

Table 1-1. Summary of project area.

Site Address	Mount Cooee Landfill, Kaitangata Highway, Balclutha
Legal Description	Lots 1 and 2 DP 12203; Part Lot 61 DP 2254
Territorial Authority	Clutha District Council
Archaeological Site No.	-
Previous Archaeological Authorities	n/a
New Zealand Heritage List/Rārangi Kōrero	None within project area. Adjacent to HNZPT List No. 5207, Railway Bridge (Blair).
Covenant or Heritage Order	n/a
Scheduled on District Plan	n/a
Reserve Status	n/a
Statutory Acknowledgement Area	None within project area. Adjacent to Statutory Acknowledgement for Mata-Au (Clutha River)
Customary Marine Title	n/a





Figure 1-1. Project area for the expansion of the Mount Cooee Landfill.

## 1.2 Proposed Activities

The CDC are proposing to expand and modify the existing Mount Cooee Landfill to provide more capacity at the existing site, as well a new facility for recycling (see Figure 1-2). This development will involve the creation of a new area for dumping, a surplus fill disposal area, and small buildings for the new recycling facilities.



Figure 1-2. Map showing the planned areas of development and existing landfill facilities, as provided by WSP (2022).

## 2 Statutory Requirements

The legislative requirements relating to archaeological sites and artefacts are detailed in the following sections. There are two main pieces of legislation that provide protection for archaeological sites: the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA 2014) and the Resource Management Act 1991 (RMA 1991). Artefacts are further protected by the Protected Objects Act 1975.

### 2.1 Heritage New Zealand Pouhere Taonga Act 2014

The HNZPTA 2014 came into effect in May 2014, repealing the Historic Places Act 1993. The purpose of this act is to promote identification, protection, preservation, and conservation of New Zealand's historical and cultural heritage. Heritage New Zealand Pouhere Taonga (HNZPT) administers the act and was formerly known as the New Zealand Historic Places Trust (Pouhere Taonga).

Archaeological sites are defined by this act as

- (a) any place in New Zealand, including any building or structure (or part of a building or structure), that--:
  - (i) was associated with human activity that occurred before 1900 or is the site of the wreck of any vessel where the wreck occurred before 1900; and
  - (ii) provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand; and
- (b) includes a site for which a declaration is made under section 43(1)

Additionally, HNZPT has the authority (under section 43(1)) to declare any place to be an archaeological site if the place

- (a) was associated with human activity in or after 1900 or is the site of the wreck of any vessel where that wreck occurred in or after 1900; and
- (b) provides, or may be able to provide, through investigation by archaeological methods, significant evidence relating to the historical and cultural heritage of New Zealand.

Archaeological sites are protected under Section 42 of the act, and it is an offense to carry out work that may “modify or destroy, or cause to be modified or destroyed, the whole or any part of that site if that person knows, or ought reasonably to have suspected, that the site is an archaeological site”, whether or not the site has been previously recorded. Each individual who knowingly damages or destroys an archaeological site without having the appropriate authority is liable, on conviction, to substantial fines (Section 87).

Any person wishing to carry out work on an archaeological site that may modify or destroy any part of the site, including scientific investigations, must first obtain an authority from HNZPT (Sections 44(a,c)). The act stipulates that an application must be sought even if the effects on the archaeological site will be no more than minor as per Section 44(b). A significant change from the Historic Places Act (1993) is that “an authority is not required to permit work on a building that is an archaeological site unless the work will result in the demolition of the whole of the building” (Section 42(3)).

HNZPT will process the authority application within five working days of its receipt to assess if the application is adequate or if further information is required (Section 47(1)(b)). If the application meets the requirements under Section 47(1)(b), it will be accepted and notice of the determination will be provided within 20 to 40 working days. Most applications will be determined within 20 working days, but additional time may be required in certain circumstances. If HNZPT requires its own assessment of the Māori values for the site, the determination will be made within 30 working days. If the application relates to a particularly complex site, the act permits up to 40 days for the determination to be made. HNZPT will notify the applicant and other affected parties (*e.g.*, the land owner, local authorities, iwi, museums, *etc.*) of the outcome of the application.

Once an authority has been granted, modification of an archaeological site is only allowed following the expiration of the appeals period or after the Environment Court determines any appeals. Any directly affected party has the right to appeal the decision within 15 working days of receiving notice of the determination. HNZPT may impose conditions on the authority that must be adhered to by the authority holder (Section 52). Provision exists for a review of the conditions (see Section 53). The authority remains current for a period of up to 35 years, as specified in the authority. If no period is specified in the authority, it remains current for a period of five years from the commencement date.

The authority is tied to the land for which it applies, regardless of changes in the ownership of the land. Prior to any changes of ownership, the land owner must give notice to HNZPT and advise the succeeding land owner of the authority, its conditions, and terms of consent.

An additional role of HNZPT is maintaining the New Zealand Heritage list, which is a continuation of the Register of Historic Places, Historic Areas, Wāhi Tapu, and Wāhi Tapu Areas. The list can include archaeological sites. The purpose of the list is to inform members of the public about such places and to assist with their protection under the Resource Management Act 1991.

## **2.2 Resource Management Act 1991**

The RMA 1991 defines historic heritage as those natural and physical resources that contribute to an understanding and appreciation of New Zealand's history and cultures, and it may include historic sites, structures, places, and areas; archaeological sites; and sites of significance to Māori. It should be noted that this definition does not include the 1900 cut-off date for protected archaeological sites as defined by the HNZPT Pouhere Taonga Act 2014. Any historic feature that can be shown to have significant values must be considered in any resource consent application.

The heritage provisions of the RMA 1991 were strengthened with the Resource Management Amendment Act 2003. The Resource Management Amendment Act 2003 contains a more detailed definition of heritage sites and now considers historic heritage to be a matter of national importance under Section 6. The act requires city, district, and regional councils to manage the use, development, and protection of natural and physical resources in a way that provides for the well-being of today's communities while safeguarding the options of future generations.

Under the RMA 1991, local authorities are required to develop and operate under a district plan, ensuring that historic heritage is protected. This includes the identification of heritage places on a heritage schedule (or list) and designation of heritage areas or precincts and documents the appropriate regulatory controls. All heritage schedules include, but are not limited to, all items on the New Zealand Heritage List/Rārangi Kōrero. Additional sites of significance to the local authority may also appear on the schedule.

The regulatory controls for historic heritage are specific to each local authority. However, most local authorities will require resource consent under the RMA 1991 for any alterations, additions, demolition, or new construction (near a listed place) with HNZPT being recognised as an affected party. Repair and maintenance are generally considered permitted activities.

### **Clutha District Council District Plan**

The RMA 1991 requires local authorities to develop and operate under a district plan. The Clutha District Plan is a legal document which helps the Clutha District Council to manage how land is used and developed. Section 3.5 of the plan identifies the significance of natural, built, and cultural heritage. The CDC District Plan identifies three distinct types of heritage which, over time, have all contributed to the development of Clutha District's unique character. The three types of heritage are: natural heritage; built heritage; and cultural heritage.

In the context of the Plan, natural heritage includes natural features and landscapes, indigenous vegetation and habitats of indigenous fauna. Built heritage refers to historic buildings, structures, precincts and streetscapes. Cultural heritage includes the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga, and sites of archaeological significance.

Iwi/hapu management plans are planning documents that are recognised by an iwi authority, relevant to the resource management issues, including heritage, of a place and lodged with the relevant local authority. They have statutory recognition under the RMA 1991. Iwi Management Plans set baseline standards for the management of Māori heritage and are beneficial for providing frameworks for streamlining management processes and codifying Māori values. Iwi Management Plans can be prepared for a rohe, heritage inventories, a specific resource or issue or general management or conservation plans (NZHPT, 2012).

Te Rūnaka o Hokonui and Te Rūnaka o Ōtakou are tangata whenua in the Clutha District. These Rūnaka are collectively involved in the protection/promotion of the region's natural and physical resources by providing input into the processes required by the RMA and other relevant legislation. *Te Tangi a Taurira - The Cry of the People: Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan* (Ngāi Tahu ki Murihiku, 2008) has been developed by Ngāi Tahu ki Murihiku and recognised by iwi authority Te Rūnanga o Ngāi Tahu. The plan describes values, identifies primary issues, and provides policies and management guidelines.

### **2.3 Protected Objects Act 1975**

The Protected Objects Act 1975 was established to provide protection of certain objects, including protected New Zealand objects that form part of the movable cultural heritage of New Zealand. Protected New Zealand objects are defined by Schedule 4 of the act and includes archaeological objects and taonga tuturu. Under Section 11 of the Protected Objects Act 1975, any newly found Māori cultural objects (taonga tuturi) are automatically the property of the Crown if they are older than fifty years and can only be transferred from the Crown to an individual or group of individuals through the Māori Land Court. Anyone who finds a complete or partial taonga tuturu, accidentally or intentionally is required to notify the Ministry of Culture and Heritage within:

- (a) 28 days of finding the taonga tuturu; or
- (b) 28 days of completing field work undertaken in connection with an archaeological investigation authorised by HNZPT.

### 3 Methodology

An archaeological assessment is required to accompany an application for an archaeological authority, as stipulated in the HNZPTA 2014. In order to assess the archaeological resources of the project area, NZHP conducted detailed documentary research.

NZHP consulted numerous sources of documentary evidence in order to determine the historical context of the project area. The results of the documentary research are provided in Section 5.3. The sources utilised in this research include:

- Kā Huru Manu, The Kāi Tahu Cultural Mapping Project
- Land title records (held by Archives New Zealand)
- Historic newspapers (accessed via the Papers Past website)
- Historic maps (accessed via Prover)
- Historical photographs of the area and the property (searches were conducted using the DigitalNZ website, Hocken Snapshot, Museum of New Zealand Te Papa Tongarewa – collections online, and the Alexander Turnbull Library)

Previously recorded archaeological sites near the project area can provide information that is valuable for assessing the archaeology. NZHP carried out a search of ArchSite to identify if there are any previously recorded sites on or near the project area. The results of the ArchSite search are documented in Section 6.

## 4 Physical Environment and Setting

The Mount Cooee Landfill is approximately 1.2km southeast of Balclutha township, between the Kaitangata Highway and the Main South Railway Line (**Error! Reference source not found.**). The project area sits on the north bank of the Mata-au (Clutha River), which is a defining element of the physical environment for the region. The Mata-au is the second longest river in New Zealand (338km) and it has an enormous catchment area that extends over most of Otago (Boffa Miskell Ltd, 2018). The Mata-au forks into two branches just south of Balclutha at the project area: the Koau and Matau Branches.

The area is on a bedrock of greywacke, which is exposed and weathered on the valley sides, and approximately 3m below the topsoil at most across the valley (Craw, 2022). This greywacke bedrock continues to a maximum of 11m deep within the project area, with overlying soils consisting of a topsoil over clay soils derived from weathering, typically 2-4 m deep. The landfill occupies a shallow valley, which slopes out towards the river at its southwest side. The valley floor consists of soft alluvial infill and swamp deposits.

There are multiple areas of freshwater available at the site, both from the adjacent river, and groundwater. Groundwater at the site is found at shallow depths within the valley floor alluvium, with a secondary source found within the greywacke at a deeper level. The surrounding area is undulating, in contrast with the gentle plain across the river within the Mata-au Delta. The soils in the delta relate to recent aggradation, including Pomahaka and Clutha soils (growOtago, 2014). Clutha soils have a greyish brown loamy silt topsoil (200-300mm deep) grading to a light yellowish-brown loamy silt subsoil. The Pomahaka soils are similar; however, they occur on active floodplains and have gravels below 450mm (Dunedin Rural Development Inc, n.d.).

With the purpose of the Mount Cooee Landfill being to service the refuse needs of the Balclutha people, it is unsurprising that it is immediately south of the township, which is a built-up area. The project area itself is deemed for “refuse disposal” and would be termed as industrial in nature. The closest neighbours to the property are a domestic residence approximately 240m northwest and a rural property 230m southeast (Craw, 2022).



## 5 Historical Background

NZHP carried out documentary research into Balclutha's historical background. This section includes a discussion of early Māori occupation of the broader area, taking into consideration the traditions, occupations, victories and defeats that all took place with the Mata-au at its heart. The Pākehā settling of the area is then summarised, with a focus on the development of the township and its expansion along the shores, before a history of the project area. A summary of key events within and around the project area is presented in Table 5-1. Through this research, it is possible to begin to identify what type of physical, cultural, and social processes have shaped the form and potential distribution of archaeological material. Additionally, historical background can be used to inform the interpretation of archaeological contexts and material whenever they area encountered.

### 5.1 Māori Occupation of Iwi Katea (Balclutha) and the Mata-au

Information regarding Māori histories within the Clutha District are largely based on kōrero tuku iho, oral accounts or lore passed down through generations, and accounts passed on to Pākehā pioneers who documented their explorations with flourish and grandeur during the early nineteenth century. Archaeological investigations have played a pivotal role in confirming or supporting these histories regarding the settling patterns of early Māori groups as well as their seasonal movement, warfare, conquest, trade and the reception to the arrival of the first European settlers.

The east coast of the South Island bares a dynamic pre-history, which is largely due the stretch of coastland having been abundant with various resources, more accessible lands and far calmer seas than its western counterpart. This is reflected in a very early map of the South Island (Figure 5-1), which was created in 1842 for Halswell, the map was drawn with the aid of two Māori guides who hailed from southern New Zealand (Taylor, 1952). The map highlights the importance of certain localities and coastal features that could be seen from the ocean were well mapped out, although not to scale in districts other than those that had been well traversed, furthermore the east is mapped out in far greater detail (Taylor, 1952).

It is now generally accepted that New Zealand's first human occupants settled around the same time as other islands in southern Polynesia between 1250 and 1300AD (Anderson & Higham, 2004; Higham & Jones, 2004). Drawing from traditional history the earliest settlers of the South Island were thought to have hunted moa and fired the forests of Canterbury and Otago (Anderson, 1983). The earliest traditions relating to the occupation of the South Island reference Rākaihautū, who brought the Waitaha tribe to New Zealand as the captain of the Uruao waka (Pacey, 2015). Rākaihautū divided the party in two and sent his two sons, as leaders of these groups, to settle the South Island (Pacey, 2015). The Waitaha people are generally regarded as the earliest settlers of the South Island, though other tribes such as Kāhui-tipua, Hāwea and Rapuwai have important traditions which also connect them to the area of Otago (Pacey, 2015). Anderson (1983) puts the Te Rapuwai and later Waitaha people among the first settlers of the South Island. However, the nomenclature of these early settlers is suspect and may refer to multiple South Island groups by later migrants as opposed to names with distinct early South Island groups generated by and identified (Anderson, 1983).

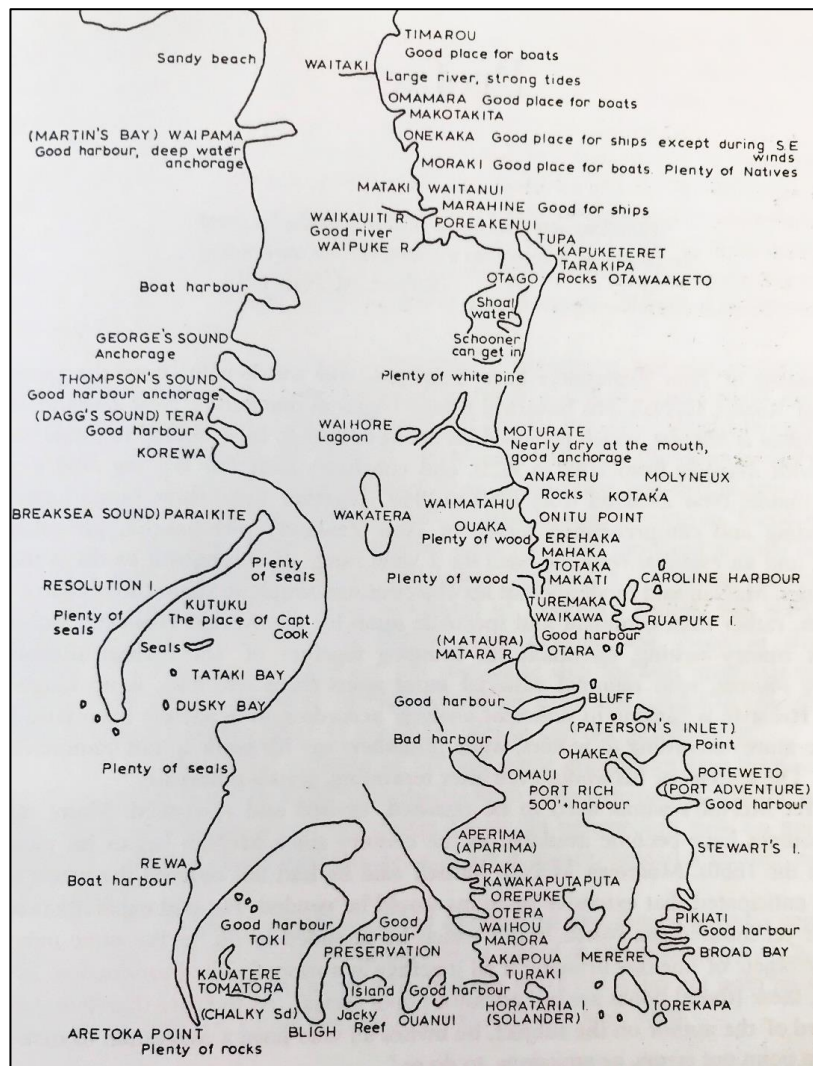


Figure 5-1. An early map of the South Island drawn with the assistance of two Māori guides in 1842 (Taylor, 1952).

### 5.1.1 Pā and Kāika

For the Clutha area, while evidence for Māori habitation does exist, it is more suggestive of a migratory route through the district as a result of a trade network established between the East and West coasts, as well as for seasonal hunting and fishing (Parcell, 1951; Peat, 2002; Roxburgh, 1957, 1990; Veitch, 2003). While it is clear that the local Māori knew the area well (as evidenced by Nathaniel Chalmers' 1853 expedition, when he was guided throughout Otago by two Māori guides, Reko and Kaikōura), there has been suggestions of a lack of evidence for any permanent pre-European Māori settlements having been established within the Clutha and Central Otago region (Anderson, 1989; Hamel, 2001), though it is widely accepted that multiple centres were heavily populated by the time of European arrivals (Anderson, 1998; Hamel, 1977; Ka Huru Manu, 2018). Mata-au is also the location of a number of urupā and battlegrounds, one in particular which relates to the project area is that of the battle at Iwi Katea (Kāi Tahu Ki Otago, 2005).

Iwi Katea (the traditional name for Balclutha), which literally translates to 'bleached bone' (McLay, 1977; Wilson, 1912), is the site where a reverse of fates witnessed the Kāi Tahu suffering a crushing defeat against the Kāti Māmoe led by Kaurahi, Te Whara-whara and Marakai in 1750. The bones of the slain were left to bleach in the sun and were believed to have been visible for many years following. Fifteen years later in 1765, Kāi Tahu extracted revenge for this killing by paddling down the Clutha and invading land occupied Kāti Māmoe Tribe. The massacre took place at Kauwae -whakatoro (Hillend), a little north of Iwi Katea. With the leaders of Kāti Māmoe slain, the remainders of the tribe saw little chance of survival and scattered, it is believed that in this spread of civilians a Kāi Tahu chief was killed by the river that was named after him; Waitahuna. Kauwae-whakatoro was one of the Kāti

Māmoe chiefs that was killed during the massacre, and the area has been regarded with this name ever since. A little way north up the river to where the massacre took place is Ota-parapara (Totara Island) and south is a small islet known as Tamariki-a-Te-Paeru ('The Children of Paeru'). The islet was so called after a woman who escaped during the raids at Kauwera-whakatoro, fled to the islet where she hid her two daughters, the mother then swam to the eastern shore where she made a mokihi, and after collecting her daughters, paddled them all to safety to the mouth of the Mata-au (Beattie, 1922).

The large island southeast of Iwi Katea, now known as Inch Clutha, is believed to be the birthplace of Tuhawaiki, who is considered to be one of the greatest leaders of the Southern Māori during the colonial period of New Zealand's History. Bound on the north by a branch of the Mata-au and on the south by the Kautu, and on the east by Moana-nui-a-Kiwa (the Pacific Ocean) at Molyneux Bay. The mouth of the Mata-au was heavily populated with many temporary and larger permanent kāik, one of these Murikauhaka, was believed to once be the home to 200 people (Kā Huru Manu, 2018b). Historical information supports tuku iho in that there was a substantial village located at the mouth of the river that was inhabited in 1830, however it appeared to be abandoned by 1840. Other larger settlements such as Tuhawaiki's village and Pokeni's village were recorded in the area by early Europeans (Anderson, 1998).

### 5.1.2 *Mahika Toi*

Stone was an important material for the day to day lives of Māori throughout the country, with stone source locations being one of the driving forces for settlement and travel. In the Otago region, silcrete and porcellanite raw materials were particularly important during periods of early Māori settlement, with over 300 outcrops mapped in the south-eastern districts of the South Island (Hamel, 2001). Near Alexandra, G42/23 records a quarry site and working floor located in the hills to the northeast of the town. The site is recorded as silcrete, with large slabs and boulders showing hammer marks. A working floor at the top of the spur was recorded as the find spot for flakes, blades, coves, hammerstones and anvils. Similarly, just north of Roxburgh, on Mount Bengier, G43/4 is recorded as a porcellanite outcrop quarried by the Māori, then damaged during damming of the area. The site record form (SRF) records that cores in various stages of working are scattered across the site.

One of the most prized stones for Māori throughout Aotearoa was pounamu (nephrite). Nephrite sources in New Zealand are contained mainly to the west coast of the South Island, with the main sources being found around Lakes Wānaka and Whakatipu Waimāori (Beck & Mason, 2002) (Figure 5-1). Pounamu is considered a taoka to Māori, due to its rarity and strength when used for tools. Pounamu sourced from the Great Lakes would have been transported across Murihiku by the river systems, as both a trading commodity and item of prestige (Coutts, 1971).



Figure 5-2. Distribution of pounamu (nephrite and bowenite) in the South Island (Beck & Mason, 2002).

### 5.1.3 *Mahika Kai*

Though permanent settlements often focused on the coast, due to its proximity to a water source, the Iwi Kātea area was utilised for the collection of food resources and raw materials. The practice is referred to as mahika kai, being “places at which resources were obtained” and literally meaning “food workings” and are often associated with seasonal camping sites or nohoaka (Potiki, 2012; Williams, 2010). Mahika kai covers marine resources, freshwater fishing, fowling, vegetable foods and industrial resources such as pounamu, chert and silcrete, and were officially recognised as sites of importance in the Smith-Nairn Commission in 1879 (Anderson, 1998; Waitangi Tribunal, 1991a).

Mata-au was an extremely important mahika kai as it also served as a main trail or ara tawhito that provided direct access to the interior lakes of Wānaka, Hāwea and Whakatipu-waimāori (Kā Huru Manu, 2018b). The river was utilised for the sourcing and collection of tuna, kanakana, kōaro, and small waterfowl (Craw, 2022), as well as likely for vegetation sources within the river itself, as well as across the plains and hills of the area.

### 5.1.4 *Ara Tawhito and Nohoaka*

Murihiku and Ōtākou, like the rest of New Zealand, is crossed by “a complex infrastructure of ara tawhito (traditional travel routes)” the knowledge of which was passed down from generation to generation and inherited by Ngāi Tahu as they moved south across Te Waipounamu (Kā Huru Manu, 2018a). These routes over land and along rivers were utilised to access important food and material resources, and to travel between communities (Kā Huru Manu, 2018a). Ara tawhito followed food resources to sustain their travellers over large distances; the knowledge of food resources came with the knowledge of the routes (Waitangi Tribunal, 1991b).

Mata-au was an important trail which provided direct access for the coastal settlements into lakes Wānaka, Hāwea and Whakatipu Waimāori (Te Runanga o Ngai Tahu, 2018). The direct access inland was part of a mahika kai trail and was used by Ōtākou hapu including Ngāti Kuri, Kāti Huirapa and Ngāi Tūāhuriri. Mata-au was also an important transportation route for inland pounamu resources down to the coastal settlements, where it was then traded north and south (Kāi Tahu Ki Otago, 2005). There were numerous landing places along the banks of the

rivers and the tūpuna had an intimate knowledge of navigation, river routes, safe harbours and locations of food resources. The Mata-au has many potential name origins. One is that it takes its name from a Kāi Tahu whakapapa that traces the genealogy of water, and that the name relates to the swiftness of the surface current (Kāi Tahu Ki Otago, 2005). The river is recognised, therefore, as a descendant of the creation traditions, and the histories that it holds reinforce tribal identity and solidarity as well as continuity between generations of South Island Māori. Further histories indicate that in the form Matau, a name which is also used for a tributary just south of the project area, the name comes from a monster who lived in the area of Whakatipu Waimāori. It is said this monster captured Manata which led to her rescue by Matakauri and his death at the hands of her kinsmen (Hokonui Rūnanga, 2022).

## 5.2 Post-Contact Occupation of the Clutha District

Port Molyneux was the site of a whaling station in 1838 and became the main goods and place of entry for the whole of the lower Clutha basin (Cyclopedia Company Ltd, 1905). Surveyors and Māori guides came overland from Otago Harbour in May 1844 (Newton Davis, Brian; Stewart Dollimore, 1966). A sketch map indicating land considered suitable for farming was drawn up and the land was recommended for purchase. Charles Henry Kettle arrived in 1847 to arrange the survey of what to become known as the Otago Block (Newton Davis, Brian; Stewart Dollimore, 1966). The portion lying south of the Clutha River, included most of the district by Balclutha, was surveyed in detail with the first Pākehā settlers arriving in the district in 1849.

The Balclutha area was settled by Europeans after Port Molyneux, Inch Clutha and East Clutha areas, with James McNeill arriving in 1852. The river provided the earliest means of communication and travel with very little roads constructed in the area. McNeill established the first ferry in 1853 with the government establishing their own ferry a few years later in 1857 (Wilson, 1912). In McNeil's time it the area became known as Clutha Ferry.

After gold was struck in Central Otago, the population of Balclutha and surrounding areas increased. Between 1858 and 1861, settlers steadily arrived in the area (Wilson, 1912). In 1861 the first punt was built in the area but owing to it being difficult and dangerous to use the Otago Provincial Council built a bridge to replace it, opening in 1868 (Wilson, 1912). Infrastructure such as the roads were improved and in 1875 the Dunedin-Invercargill railway reached the north bank at Balclutha. The rail link to Invercargill was completed in 1879 (Newton Davis, Brian; Stewart Dollimore, 1966). In 1878 a serious flood occurred, Balclutha was flooded, and the road bridge destroyed. The lower course of the Clutha changed and Port Molyneux was ruined as a port. Soon after, stop banks and flood banks along the river were erected to protect the town from further damage from flooding (Newton Davis, Brian; Stewart Dollimore, 1966).

## 5.3 History of the Project Area

The project area, comprised of Lots 1 and 2 DP 12203; and Part Lot 61 DP 2254, is located adjacent to the Mata-au, on the eastern fringes of what is now the Balclutha township. However, the wider landscape was utilised for various lifeways activities by Māori prior to, and after, the arrival of Pākehā to the area. From 1872, the project area formed part of the Hermitage Estate, which was owned by enterprising farmer and businessman, Archibald Anderson. Following Anderson's death in 1910, the Hermitage Estate was subdivided, and the project area became the site of various small farms and residences. The following sections will detail the history of the project area, with Table 5-1 summarising the key events identified through the historical research.

**Table 5-1. Summary of key events for the project area.**

Year	Event	Source
Pre-1858	Mata-au and the wider landscape surrounding the project area used as an ara tawhito, mahika kai, and as part of wider lifeways activities	(Kā Huru Manu, 2018a)
1858	Archibald Anderson farming in the wider landscape; likely granted land that would become the Hermitage Estate	(The Cyclopedia Company Limited, 1905)
1860s	Crown Grant Map showing the project area; Archibald Anderson detailed as owning land that would become the Hermitage Estate	( <i>Crown Grant Index Record Map. Inch Clutha, North and South Molyneux, Parts Clutha, Coast and South Tuakitoko Districts.</i> , n.d.)



1872	First Certificate of Title (CT) issued to Archibald Anderson for land within the North Molyneux and Hillend Survey Districts	CT OT5/193
1875	Project area depicted adjacent to the Dunedin-Clutha Railway	(Public Works Department, 1875)
1880	Anderson begins advertising farmland for lease within The Hermitage Estate	(Clutha Leader, 1880b)
1880	Land taken from The Hermitage Estate for formation of a road, which would become Kaitangata Highway	(Clutha Leader, 1880a)
1910	Death of Archibald Anderson	(Clutha Leader, 1910)
1911	The Hermitage Estate subdivided and auctioned off following Anderson's death, cottages, stables and other buildings clearly already present on the land	(Clutha Leader, 1911; Paterson, 1911)
1970	Project area transferred to the Clutha District Council	OT4C/63

Initially, the project area was situated across the historic land parcels of Sections 4 and 5, Block XIV, North Molyneux Survey District (see Figure 5-3) and Section 43, Block I, Hillend Survey District. The Crown Grant Index Record Map, as shown in Figure 5-3, details that Archibald Anderson was the grantee for the majority of the project area. Anderson was a noted early pastoral settler, who moved to the Clutha District in 1858, and eventually settled on an estate which would become to be known as The Hermitage.

The first CT for the historic land parcels which would become the project area was issued to Anderson in 1872 (CT OT5/193). It was not uncommon for there to be retrospective, formalised Crown Grants and CTs issued owing to the sheer volume of land grants. The next depiction of the project area comes from 1875, and details the Dunedin-Clutha Railway extending through the landscape (Figure 5-4). This survey, from the Public Works Department, again notes Anderson as the owner of numerous historic land parcels across the North Molyneux and Hillend Survey Districts. Interestingly, despite Public Works Department survey plans being noted for their high-level of detail, no buildings or structures are noted within the project area on this survey plan.

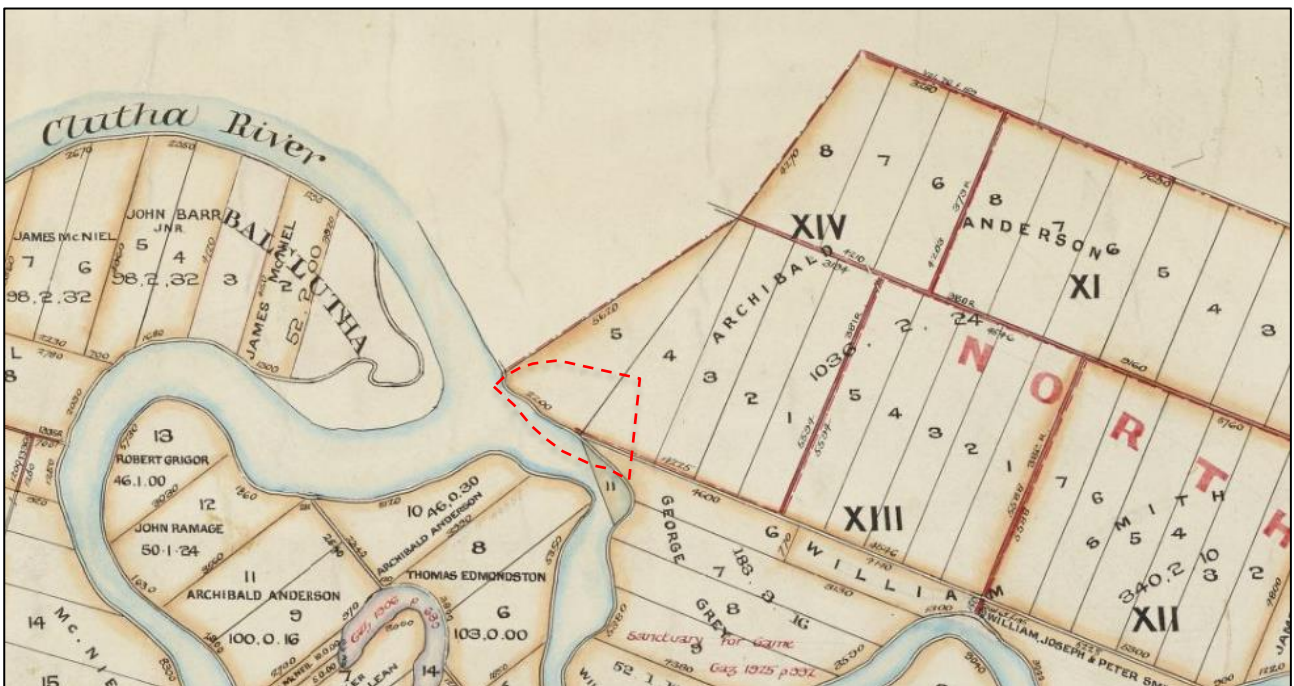


Figure 5-3. Detail from the Crown Grant Index Record Map, with the approximate location of the project area indicated in red (Crown Grant Index Record Map. *Inch Clutha, North and South Molyneux, Parts Clutha, Coast and South Taakitoko Districts.*, n.d.).



Figure 5-4. Detail from the Dunedin-Clutha Railway Plans with the approximate location of the project area indicated in red (Public Works Department, 1875).

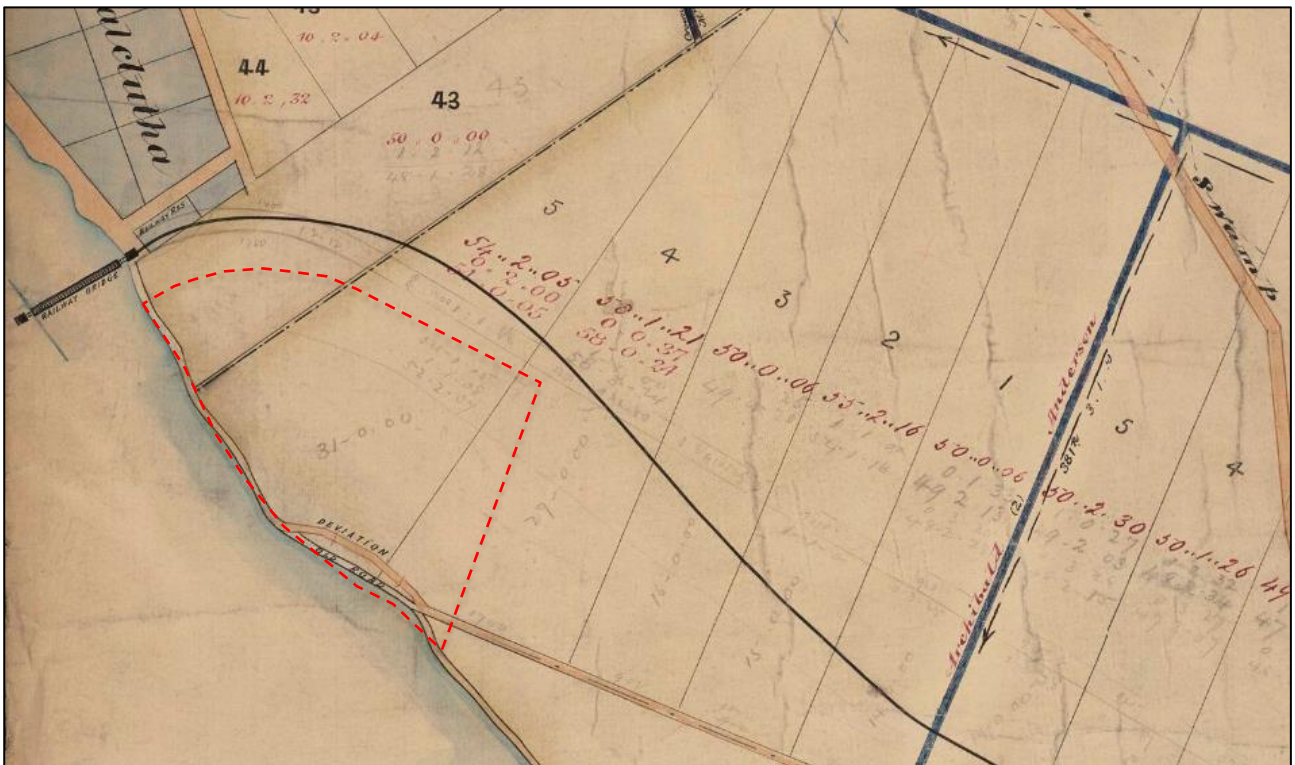


Figure 5-5. Detail from the Molyneux Road Board plans, with the approximate location of the project area indicated in red (Brunton, n.d.).

In 1880, Anderson begins to advertise farmland for lease within his Hermitage Estate (Clutha Leader, 1880b). The advertisement details that four farms of varying sizes are available for lease, with English grass sown across all.



However, the advertisement does not provide any indication of structures of buildings present on these farms. This same year another advertisement is placed in the *Clutha Leader*, but this time noting that land is to be taken from Anderson’s Hermitage Estate for the formation of a road (Clutha Leader, 1880a). A plan, likely produced at a similar time to the advertisement, details the new road deviation in comparison with the original road (see Figure 5-5). This road later becomes what is now known as the Kaitangata Highway, and it is likely that the road deviation is a result of the numerous floods which plagued the Mata-au during the nineteenth century. The first hint at a farm in this vicinity of the project area comes in 1903, when an advertisement in the Clutha Leader calls for tenders for cutting broom and gorse on Mount Cooee farm (1903).

Archibald Anderson passed away at his residence on the Hermitage Estate in 1910 (Clutha Leader, 1910) and following this, his estate was subdivided and auctioned off (Clutha Leader, 1911). The advertisement for the auction noted that 60 sections have been created from the subdivision of the Hermitage Estate, and some of these are detailed on Deposited Plan (DP) 2254 (see Figure 5-6). This DP shows the planned subdivision, along with the existing buildings and structures on the land, including numerous small cottages, stables and other buildings. The historic research cannot clarify when these buildings were constructed, but it is evident they were established prior to the 1911 subdivision, with potential that they date to the nineteenth century.

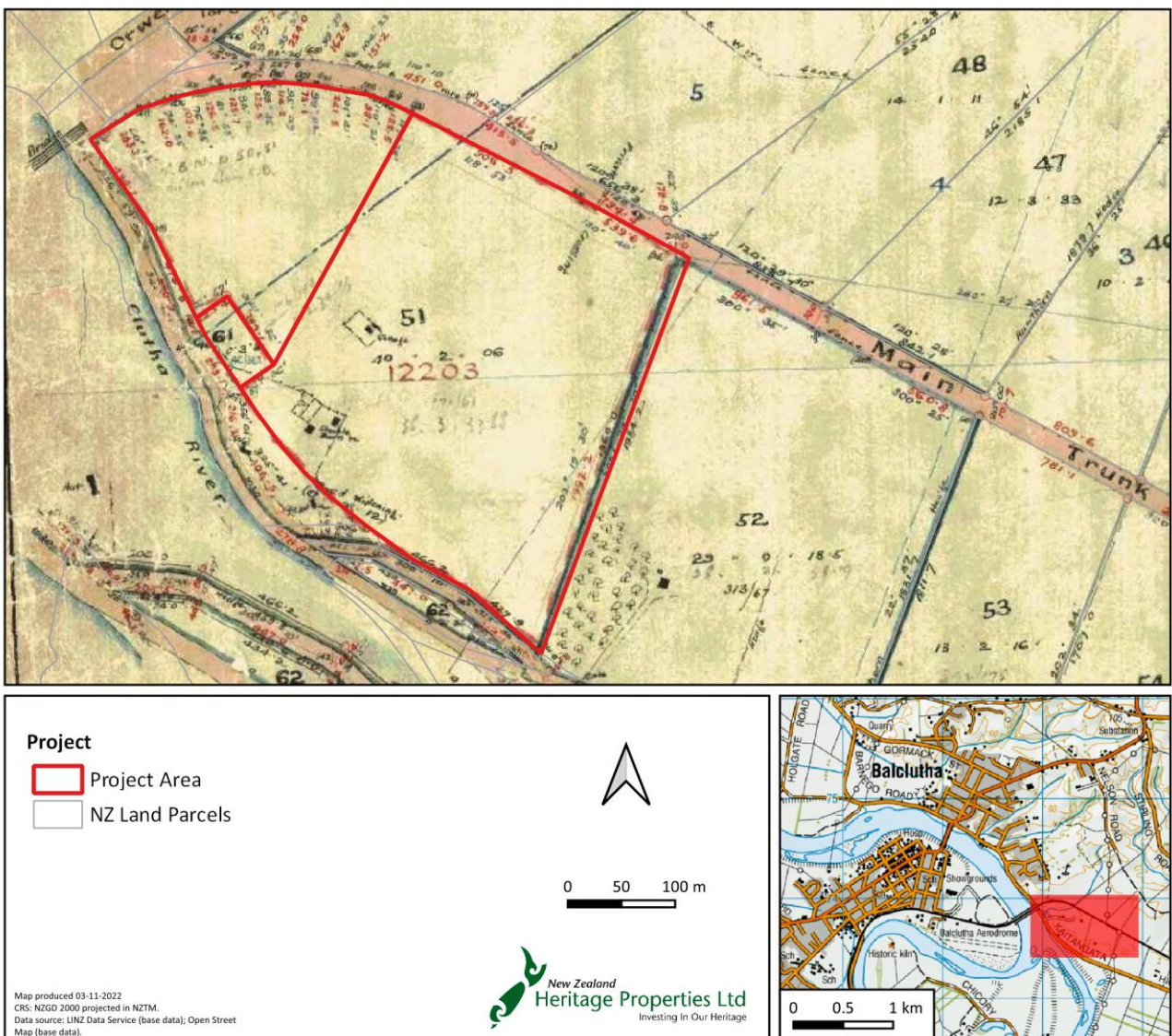


Figure 5-6. Georeferenced DP with the project area overlain (Paterson, 1911).

No surviving nineteenth century photographs depicting the project area were identified during the course of this assessment. The first photograph showing the project area clearly, situated adjacent to the Dunedin-Clutha Railway

bridge, and partially flooded, dates to 1957, and shows what is likely the cottage depicted in the 1911 plans (see Figure 5-7).



Figure 5-7. Detail of photograph 1957 photograph, with the cottage indicated (O.D.T. Collection, 1957).

Moving into the mid-twentieth century, little appears to change within the project area, with farmland dominating the project area, and small residences dotted throughout (see Figure 5-8). However, this extensive history of farming ceases in 1970, when the project area is transferred to the Clutha District Council and it is eventually transformed, in part, into the Mount Cooee Landfill (CT OT4C/63).



Figure 5-8. Aerial photograph with the approximate location of the project area indicated in red (LINZ, 1946).

## 6 Previous Archaeological Investigations and Archaeological Context

Despite no archaeological sites being currently recorded within the project area, there are a number of heritage archaeological sites recorded within the 1500m buffer of the project area, with the majority of these sites being within the current residential areas of Balclutha (Figure 6.1). These archaeological sites are primarily commercial, domestic or isolated artefact finds. All are related to the Colonial Period of 1840-1900 and with the exception of one drain and one kiln, all have no above surface visible features. The Clutha District Council has four sites located on their heritage schedule that are within the 1500m buffer for this project.

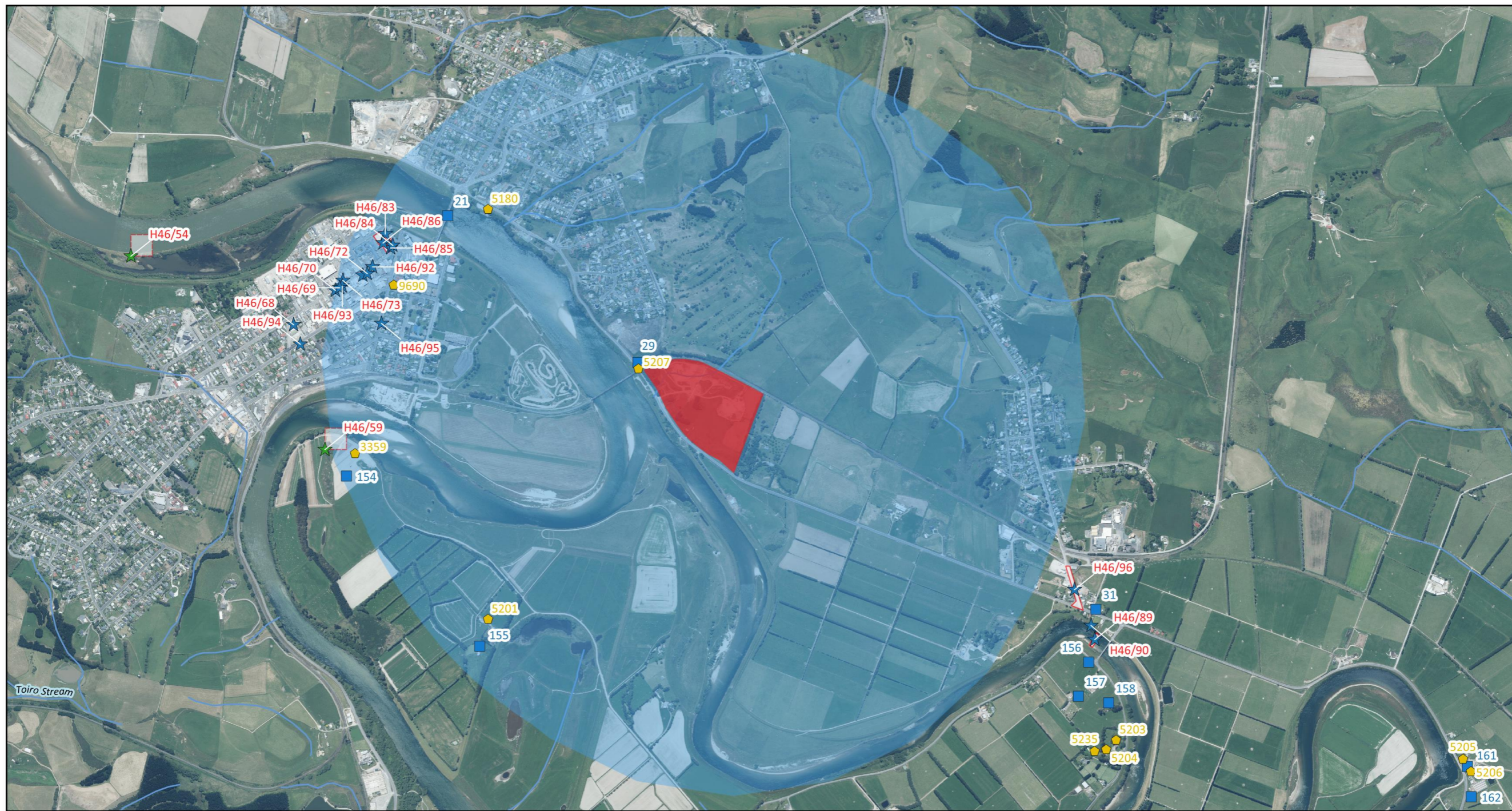
### 6.1 The Archaeological Context of the Project Area

While there are no archaeological sites present within the project area boundary, there are 13 recorded archaeological sites located within a 1500m radius of the project area. All 13 of these sites are associated with the township of Balclutha, of which the project area is slightly removed. These sites all reflect the colonial history of Balclutha, and the commercial and domestic nature of this town. The majority of these sites do not include above surface visible evidence, with many only being recorded from artefacts found or historical documentation. The two remaining sites with above ground features are a chicory kiln with wooden features (H46/59) and an early drainage sump constructed of concrete and capped with two large concrete pavers (H46/73). Of the remaining sites, four are domestic residences (H46/92, H46/83, H46/95 and H46/93) with evidence of archaeological artefacts found during earthworks. There are a further three sites recorded as commercial sites which were all informed by historical evidence (H46/85, H46/86 and H46/84). Two additional sites are listed as concrete kerbing, (H46/70 and H46/69), while the remaining two sites are both records of isolated archaeological artefacts. It is possible that there are additional sites currently unrecorded within the area, as the above is only representative of recorded sites to date and thus may not be representative of the true distribution of the archaeology of the area.

**Table 6-1. List of recorded archaeological sites within close proximity to project area.**

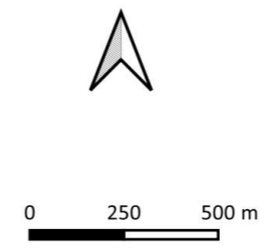
NZAA ID	Description	Site Type	Period
H46/73	Early drainage sump constructed of concrete and capped with two large concrete pavers.	Artefact find	Colonial 1840-1900
H46/92	Historic artefact deposit	Historic - domestic	Colonial 1840-1900
H46/71	During landscaping excavations some mixed 19th and 20th century artefactual material was uncovered.	Artefact find	Colonial 1840-1900
H46/85	Nineteenth century house and shop recorded on the basis of historical documentation.	Commercial	Colonial 1840-1900
H46/83	Site of an 1870s cottage recorded from historical information.	Historic - domestic	Colonial 1840-1900
H46/59	Chicory kiln with wooden features.	Commercial	Colonial 1840-1900
H46/72	Partially excavated rubbish pit containing material from the 1870s and 1880s beneath kerb.	Artefact find	Colonial 1840-1900
H46/95	Historic artefact deposit	Historic - domestic	Colonial 1840-1900
H46/93	Historic artefact deposit	Historic - domestic	Colonial 1840-1900
H46/86	Nineteenth century occupation recorded on the basis of historical documentation.	Commercial	Colonial 1840-1900
H46/84	Site of house and shops constructed ca. 1875 recorded on the basis of historical information.	Commercial	Colonial 1840-1900
H46/70	A brick constructed channel and concrete kerb on top discovered during landscaping.	Administrative	Colonial 1840-1900
H46/69	Section of historic concrete kerb exposed during upgrade works.	Transport/ communication	Colonial 1840-1900



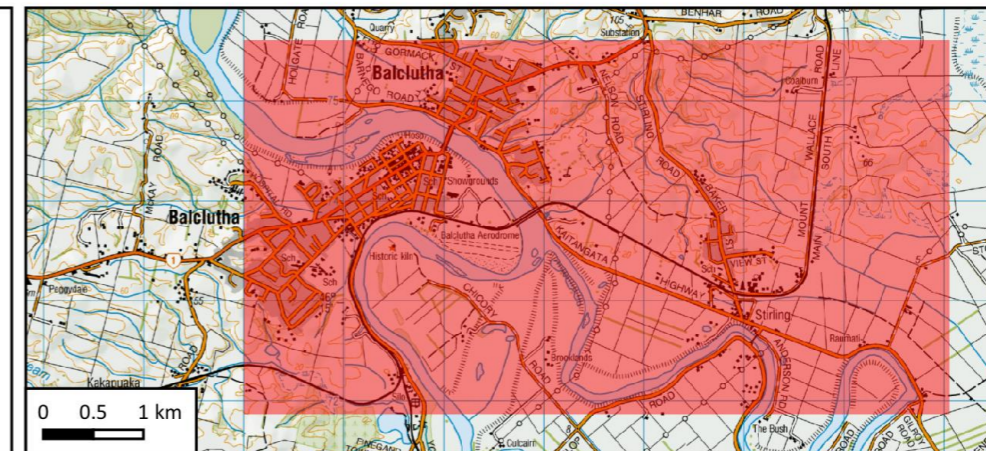


- Project**
- Proposed Project Area
  - 1500 m Buffer
  - NZ Land Parcels
- Clutha District Council Plan**
- Heritage Item
- New Zealand Heritage List/Rārangī Kōrero**
- List Entry

- ArchSite**
- Combination
  - Māori
  - Non Māori
  - Not Classified
  - ArchSite Accuracy
  - ArchSite Area



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Map produced 11-11-2022  
CRS: NZGD 2000 projected in NZTM.  
Data source: LINZ Data Service (base data); Open Street Map (base data).

Figure 6-1. Previously recorded archaeological and heritage sites within the vicinity of the proposed project area.



## 6.2 Recognised Heritage Sites

There are four heritages sites within the locality of this project area on the New Zealand Heritage List/Rārangī Kōrero and the Clutha District Council Heritage List. This includes two bridges, a homestead and a kiln. The current Balclutha Bridge (H30, NZH List number 5180) was completed in 1935 although the first bridge in that location opened in 1868. This bridge is described as being vital to the endurance of Balclutha and the lifeline of the town, connecting the town with other places along State Highway 1. The Blair Railway Bridge (H58, NZH List number 5207) is located directly adjacent to the site boundary, crossing the Clutha/Mata-au River at the northwest extent of the site. This bridge was opened in 1878, and through repair, strengthening work and the replaced of the timber spans with steel trusses, it is still in service today. The former Gregg and co. Chicory Kiln is located further west, and between 1881-1956 grew, harvested and dried chicory root for the Gregg and Co's coffee processing business (H11, NZH List number 3359). It is known to be the second kiln of its kind built in New Zealand and remains a prominent feature of the flat Inch Clutha landscape today. The Balmoral Homestead is located south of the project area and is a historic, privately owned house (H9, NZH List number 5201). The Balclutha Bridge is a Historic Place (Category 1), while the other three sites are Category 2.

## 7 Results of the Site Survey

A site visit was carried out on the 5 December 2023 by Victoria Ross to record the current condition of the project area and identify any exposed areas of archaeology (Figure 7-1). The following section will describe the results of the site survey, documenting the site setting and condition of visible pre-1900 structures and buildings.

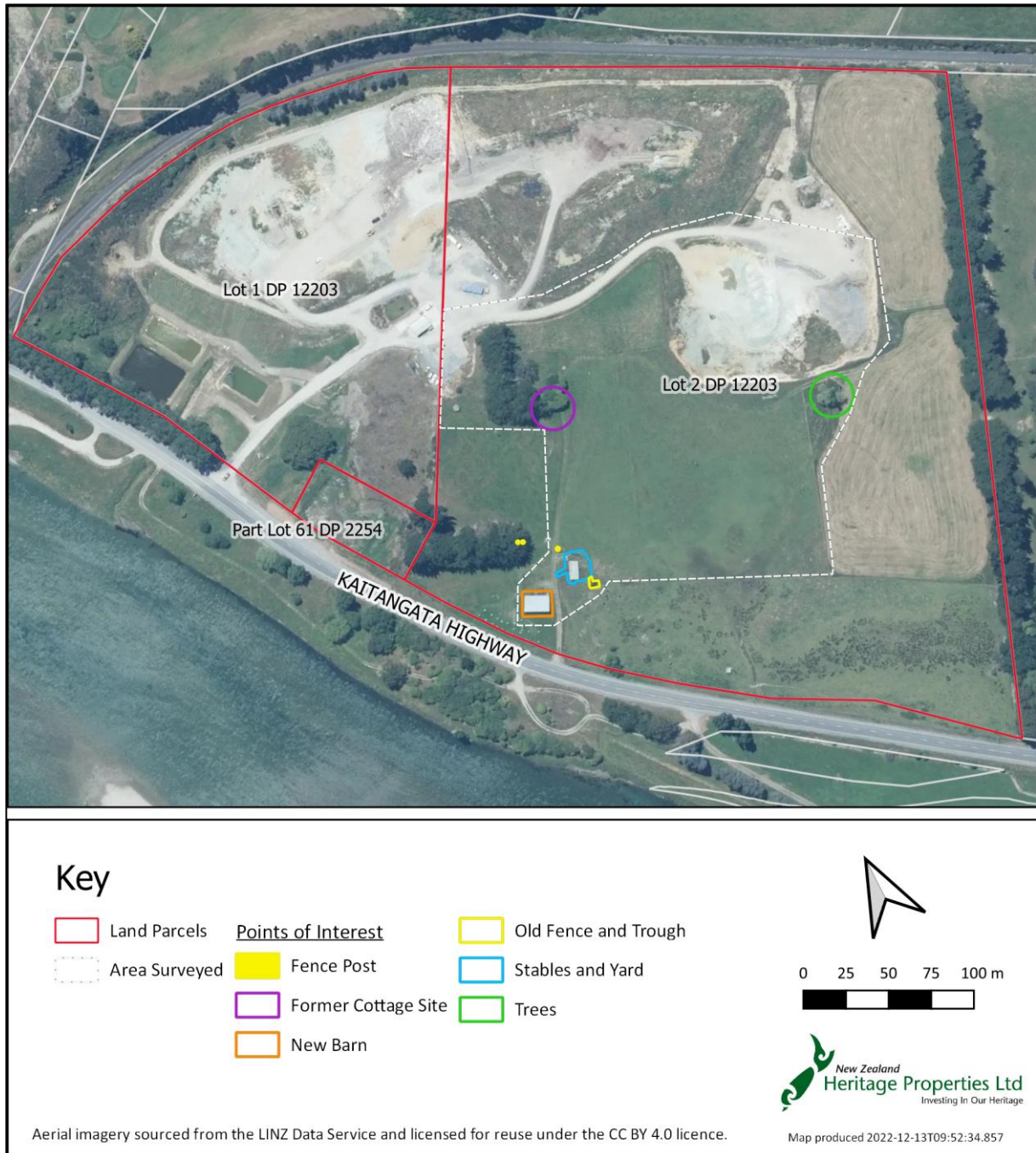


Figure 7-1. Plan of Mount Cooee Landfill, showing points of interest identified during site survey.

### 7.1 Setting

The Mount Cooee Landfill is an active rubbish disposal site, bounded by Kaitangata Highway on the south, and the Main South Line Railway on the north. The south east side of the site is currently utilised for farming, with the current landfill focused in the centre of the site. Access to the site is from the southwest corner, leading to a flat parking area at the boundary of the two large land parcels (Figure 7-2). The site slopes down from the north to the south, with the two active dumping areas cut down into the natural soil profile (Figure 7-3). The site is split into

different areas by tracks or fences, including a fence to separate the active landfill from the farm properties on the south side. The north and west sides of the landfill area were not surveyed as no further works will be extending into these areas. The survey focused mainly on the area to be extended in the southeast, and points of interest identified during the historical research.



Figure 7-2. Current parking area at the boundary of the two land parcels, looking east then west.



Figure 7-3. Overlooking eastern dumping area, showing cuts into the natural soil profiles. Looking northeast.

To the south of the main drive was a large hill (Figure 7-4). The historical mapping indicated this was once the location of a cottage, with a group of *Macrocarpas* surrounding it. At the time of the survey this area had been cleared, with a single *Macrocarpa* stump visible. No archaeology was visible in this area; however, it is highly likely that there are subsurface archaeological remains in this area. Similarly, at the eastern extent of the survey area was a cluster of introduced tree species at the head of a small gully (Figure 7-5). No archaeology was visible in this area; however, a cluster of introduced trees may indicate some human modification of this area, and there is potential there is subsurface archaeology within the vicinity.





Figure 7-4. Area identified as location of former cottage, looking southeast. No archaeology was visible in areas.



Figure 7-5. Cluster of introduced tree species at the head a small gully, looking southeast. May indicate location of subsurface archaeology.

At the south of the project area were two farm buildings, and a number of other agricultural features. A shearing shed sat to the east of a track, while a modern barn sat at the end of the path, on the west side, close to the road (Figure 7-6). This had a levelled area on the north side for access, which aligns with the historic location of a barn. No evidence of archaeology was visible in this levelled area or immediately surrounding the barn building.



**Figure 7-6. Modern barn building at the southwest of site, looking southwest. Note levelled area in front of the barn.**

To the north of the barn a series of potentially historic timber posts were visible (Figure 7-7). One was at the edge of the track leading to the buildings, while two were viewed under the *Macrocarpa* tree line. This line of *Macrocarpas* aligns with a fence line visible on the 1911 DP, which indicates there were a set of small yards adjacent. It is likely that all three timber posts relate to this fence line.



**Figure 7-7. Timber posts visible in the south area of site, aligning with a historic fence line. Left: posts under *Macrocarpa* line, looking north. Right: single post adjacent to track, in relation to *Macrocarpas*, looking southwest.**

To the east of the track and modern barn was a shearing shed with attached yards, ramp, fence and water trough. The fence is currently a small section to the south of the shed (Figure 7-8), forming a right angle, made of timber with cross bracing and large coach bolts (Figure 7-9). This partially aligns with the historic fence line shown on the 1911 plan, although the east-west section runs perpendicular to the historic line. A modern gate has been added to access the shed, with tall strainer posts bolted to the existing post, and wrapped with wire. At the centre of the right angle is introduced tree surrounded by gorse, and the fence ends at a large concrete circular water trough (Figure 7-9).





**Figure 7-8. Potentially historic fence and tree, south of shed, looking west.**



**Figure 7-9. Left: Coach bolts in fence with modern wire wrapping. Right: concrete trough at end of fence.**

Attached to the shearing shed were a series of small yards and a loading ramp. These were timber with sections of corrugated iron patches. It was clear that there were a range of ages among the fences forming the yards, and the timber run was more modern. Some likely original sections of yard were viewed, identified by the age of wood and fastener used. While some sections had modern screws, bolts and nails, older rose-head nails and wrought nails were viewed in various places (Figure 7-10). At least two posts were reused rail sleepers, complete with iron spikes (Figure 7-11). It is likely these were repurposed from the offcuts or repairs to the adjacent Main South Line.





Figure 7-10. Wrought nail found on fence post, matching others still in situ.



Figure 7-11. Repurposed railway sleepers with iron spikes, utilised in the construction of the yards.

## 7.2 Stable

The stable is a small building towards the southern extent of the site (Figure 7-12). This is a timber framed building, currently used as a shearing shed, though clearly originally a stable as marked on the 1911 plans (see Table 7-1 for a summary of the building construction). The building was clad originally in lapped weatherboards, apparently unpainted, which has been repaired throughout the years with various sheets of iron and corrugated iron (Figure 7-13). The roof is corrugated iron which has been replaced sometime in the last 20 years. The north, west and south elevations are plain, with no windows or doors. A large door and two small windows are present on the east elevation (Figure 7-12). The windows are simple four light fixed sashes, two over two. The window on the north

end is covered by a small patch of corrugated iron. The door is currently a half height batton, but was once a standard stable door comprising a top and bottom half.

The stable is a single room, with four stalls created with half-height partitions, along with an open space at the south and east sides. The stalls had been adapted, with low gates added to the front to house sheep (Figure 7-13). At least two of the stalls still had feed troughs built into the back wall. The timbers used for the stall partitions and feed troughs were mostly pit sawn, with rose-head nails (Figure 7-14, Figure 7-15). There were some repairs evident across many of the stalls. The bracing at the front of the stalls had been largely replaced with modern timbers showing circular saw marks. The floor was a laid brick floor, in stretcher bond, with no mortar (Figure 7-16). It appears this was laid directly on the packed earth. In the south end of the stable, a timber floor had been added over the brick as a working floor, with a sorting table added against the south wall. The roof was a simple truss, with rafters checked into the top plate and ceiling joists checked into central support columns. Many alterations have been made to the stables throughout its life, including its adaptation to a shearing shed, but the majority of the original fabric appears to be intact.

**Table 7-1. Summary of Stables.**

<b>Property Type</b>	Stables
<b>Number of Floors</b>	1
<b>Construction Type</b>	Timber
<b>Cladding Type</b>	Lapped weatherboards and corrugated iron
<b>Roof Style</b>	Single gable
<b>Roof Material</b>	Corrugated iron
<b>Windows</b>	Timber fixed sash, two over two
<b>Foundations</b>	Not viewed
<b>Chimney</b>	n/a
<b>Floors</b>	Brick, with timber addition
<b>Ceilings</b>	n/a
<b>Wall Coverings</b>	n/a
<b>Major Modifications</b>	Stalls have been converted into small pens for sheep. Timber floor added over brick in working area. Sorting table added to south wall. Walls repaired with corrugated iron.



**Figure 7-12. East elevation of the stable, now shearing shed.**





Figure 7-13. Left: north corner of stable, showing meeting of two phases of cladding. Right: stall within stable, showing the original partitions and modern additions.



Figure 7-14. Pit sawn timbers used for the partitions between stalls.





Figure 7-15. Left: Pit sawn timbers and rose-head nails on feed troughs. Right: rose-head nails used in wall framing.



Figure 7-16. Brick floor with modern timber added over.



## **8 Constraints and Limitations**

There were few constraints or limitations encountered during the completion of this assessment. However, the lack of nineteenth century rates records and photograph material did constrain the historic research.

## 9 Conclusions and Recommendations

The CDC are proposing to expand and modify the existing Mount Cooee Landfill to provide more capacity at the existing site, as well a new facility for recycling. This development will involve the creation of a new area for dumping, a surplus fill disposal area, and small buildings for the new recycling facilities.

The project area is located adjacent to the Mata-au, on the eastern fringes of what is now the Balclutha township. However, the wider landscape was utilised for various lifeways activities by Māori prior to, and after, the arrival of Pākehā to the area. From 1858, the project area formed part of the Hermitage Estate, which was owned by enterprising farmer and businessman, Archibald Anderson. Following Anderson's death in 1910, the Hermitage Estate was subdivided, and the project area became the site of various small farms and residences. In 1970, the project area was transferred to the CDC in 1970 and subsequently became the Mount Cooee Landfill.

This assessment has determined that there are no clear archaeological remains or features within the proposed works area. A small group of introduced trees is present at the top of a small gully at the southeast of the proposed expansion area; while there are no clear archaeological remains visible on the surface within the trees, there is the potential for subsurface remains in this area. A potential pre-1900 building and associated features are located at the south of the property, outside the current proposed expansion. An area at the centre of the property, recently cleared, was the former location of a potential pre-1900 cottage, and there is potential for subsurface archaeological remains in this area as well.

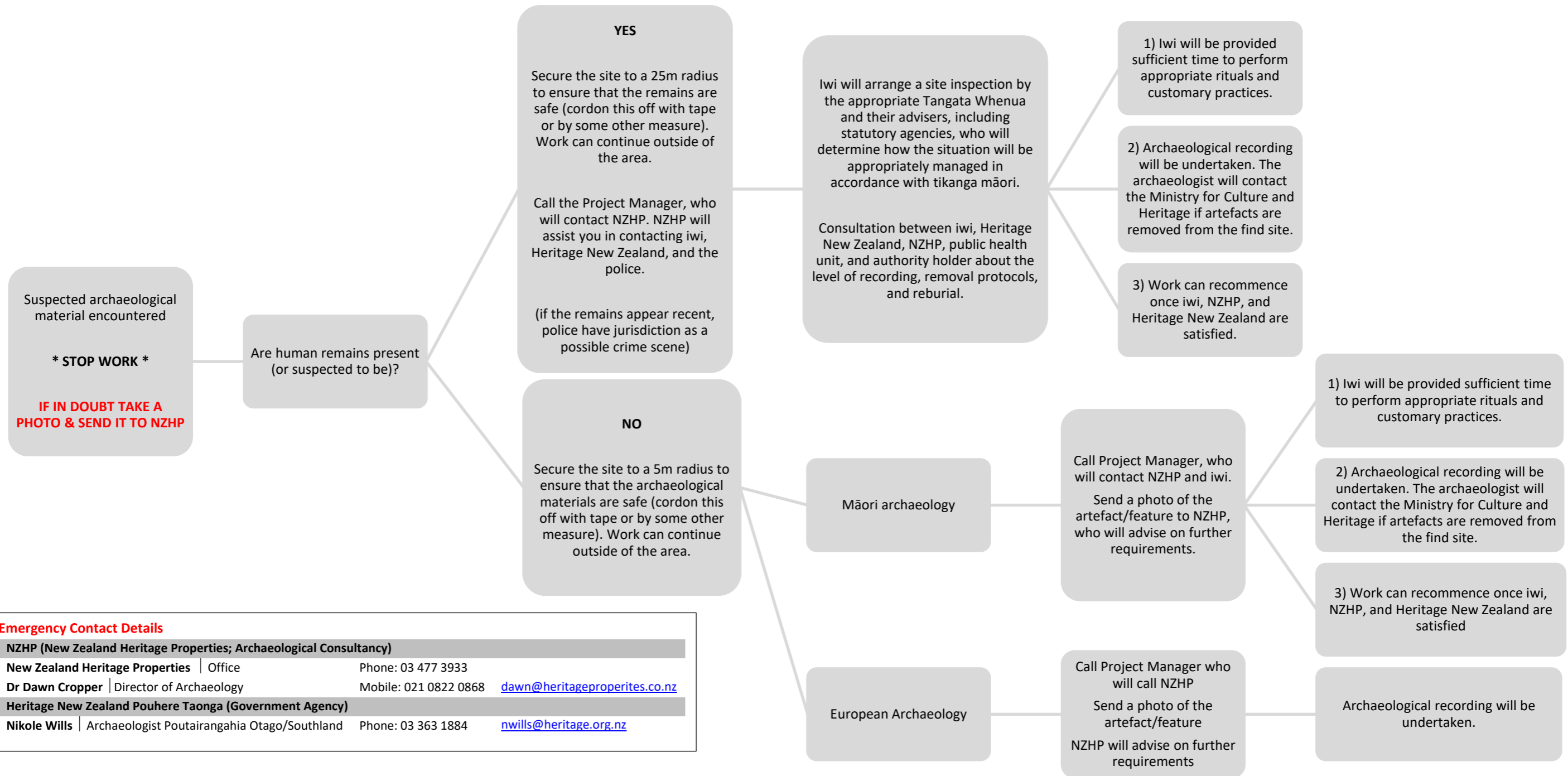
As a result, this assessment has concluded there is no reasonable cause to suspect that an archaeological site, as defined by the HNZPTA 2014, is within the proposed work area. As such, NZHP recommends that planning for an archaeological authority as per the HNZPTA 2014 is not required. However, works must operate under an Accidental Discovery Protocol (**Error! Reference source not found.**), which should be supplied to all contractors involved in earthworks. Should future works be proposed for the location of the former cottage, or surrounding the stable, NZHP would recommend an archaeological authority be applied for due to the potential for these sites to be pre-1900.

## 10 References

- Anderson, A. (1983). *When all the moa-ovens grew cold: Nine centuries of changing fortune for southern Maori*. Otago Heritage Books.
- Anderson, A. (1989). *Prodigious Birds: Moas and moa-hunting in prehistoric New Zealand*. Cambridge University Press.
- Anderson, A. (1998). *The Welcome of Strangers; an ethnohistory of southern Maori*. University of Otago Press.
- Anderson, A., & Higham, T. F. G. (2004). The age of rat introduction in New Zealand: Further evidence from Earthquakes {#}1, North Otago. *New Zealand Journal of Archaeology*, 24, 135–147.
- Beattie, H. (1922). *TRADITIONS AND LEGENDS. COLLECTED FROM THE NATIVES OF MURIHIKU. (SOUTHLAND, NEW ZEALAND.)*. The Polynesian Society.
- Beck, R. J., & Mason, M. (2002). *Mana Pounamu: New Zealand jade*. Reed.
- Boffa Miskell Ltd. (2018). *Natural Character, Riverscape & Visual Amenity Assessments. Clutha/Mata-Au Water Quantity Plan Change – Stage 1 Prepared for Otago Regional Council*. Unpublished report prepared by Boffa Miskell Limited for Otago Regional Council.
- Brunton, W. E. (n.d.). *North Molyneux [Road District] [South Tuakitoto Survey District, Hillend Survey District, North Molyneux Survey District, Town of Balclutha] [plan]*. Archives New Zealand.
- Clutha Leader. (1880a). *Matau Road Board*. 25 June 1880, Page 5.
- Clutha Leader. (1880b). *Page 4 Advertisements Column 2*. 23 January 1880, Page 4.
- Clutha Leader. (1903). *Page 4 Advertisements Column 4*. Clutha Leader. <https://paperspast.natlib.govt.nz/newspapers/CL19031127.2.12.4>
- Clutha Leader. (1910). *Death, of a Pioneer*. 16 September 1910, Page 6.
- Clutha Leader. (1911). *Page 4 Advertisements Column 1*. 20 June 1911, Page 4.
- Coutts, P. (1971). Greenstone: The Prehistoric Exploration of Bowenite from Anita Bay Milford Sound. *The Journal of the Polynesian Society*, 80(1), 42–73.
- Craw, A. (2022). *Mt Coee Landfill: Consenting Strategy*. *Crown Grant Index Record Map. Inch Clutha, North and South Molyneux, Parts Clutha, Coast and South Tuakitoko Districts*. (n.d.). Archives New Zealand.
- Cyclopedia Company Ltd. (1905). *The Cyclopedia of New Zealand [Otago & Southland Provincial Districts]: Purakanui*.
- DfT. (2008). *Design Manual for Roads and Bridges. Volume 11, Environmental Assets; Section 3, Environmental Topics; Part 2 HA 208/7 Cultural Heritage*. Department for Transport and Highways England.
- Dunedin Rural Development Inc. (n.d.). *Soil Technical Data Sheets*. Dunedin Rural Development Inc and Dunedin City Council.
- growOtago. (2014). *growOtago*.
- Hamel, J. (2001). *The Archaeology of Otago*.
- Higham, T. F. G., & Jones, M. (2004). Chronology and Settlement. In L. Furey & S. Holdaway (Eds.), *Change through time: 50 years of New Zealand Archaeology* (New Zealand, pp. 215–234).
- HNZPT. (2014). *Archaeological Guidelines Series: Koimi Tangata Human Remains* (Issue August).
- HNZPT. (2019). *Writing Archaeological Assessments. Archaeological Guidelines Series No. 02*. Heritage New Zealand Pouhere Taonga.
- Hokonui Rūnanga. (2022). *Mata Au - Clutha River*. Hokonui Rūnanga. <https://www.hokonuirunanga.org.nz/about-us/two-rivers-mataura-mata-ura-and-clutha-mata-au/mata-au-clutha-river/>
- ICOMOS. (2011). *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties*.
- Kā Huru Manu. (2018a). *Ka Ara Tawhito*. Te Runanga O Ngāi Tahu.
- Kā Huru Manu. (2018b). *Te Au-nui-pihapaha-kanakana*. Te Runanga O Ngāi Tahu.
- Kāi Tahu Ki Otago. (2005). *Kai Tabu Ki Otago Natural Resource Management Plan 2005*. Kāi Tahu Ki Otago.
- Kerr, J. S. (2013). *The Conservation Plan. A guide to the preparation of conservation plans for places of European Cultural Significance* (Seventh Ed). James Semple Kerr.
- LINZ. (1946). *SN381*. Retrolens.
- McLay, E. (1977). *Stepping Out: A history of Clutha County Council*. Clutha County Council.
- Muir & Moodie. (1907). *Balclutha, Molyneux R. RY & Traffic Bridge [photograph]*. Te Papa Tongarewa.
- Newton Davis, Brian; Stewart Dollimore, E. (1966). *Balclutha*.
- O.D.T. Collection. (1957). *Aerial view of floods, ODT Collection*. National Library of New Zealand.
- Pacey, H. (2015). *New Zealand Heritage List/Rarangi korero - Report for Wahi Tupuna: Toitu Tauraka Waka, Dunedin (List No. 9774)*.
- Parcell, J. C. (1951). *Heart of the Desert: Being the History of the Cromwell and Bannockburn Districts of Central Otago*. Whitecombe & Tombs Limited.
- Paterson, N. (1911). *Plan of the Hermitage Estate [DP 2254]*. LINZ.

- Peat, N. (2002). *Wanaka: The Lake Wanaka Region*. University of Otago Press.
- Potiki, T. (2012). *A Thematic Maori Heritage Study for Dunedin*. KTKO Consultancy Ltd.
- Public Works Department. (1875). *Dunedin and Clutha Railway, land plans, 30 sheets, Blair [plan]*. Archives New Zealand.
- Roxburgh, I. (1957). *Wanaka Story: A History of the Wanaka, Hawea, Tarras, and surrounding districts*. Capper Press.
- Roxburgh, I. (1990). *Wanaka and surrounding districts*. Central Otago News Print.
- Taylor, W. A. (1952). *Lore and history of the South Island Māori*. Bascands Ltd. Electronically Reproduced by the New Zealand Electronic Text Collection, Victoria University, Wellington.
- Te Runanga o Ngai Tahu. (2018). *Ka Huru Manu*.
- The Cyclopedia Company Limited. (1905). *Mr. Archibald Anderson*. The Cyclopedia Company Limited.
- Veitch, I. (2003). *Clyde on the Dunstan*. John McIndoe Limited.
- Waitangi Tribunal. (1991a). *Ngai Tahu Report, Wai 27, WTR 3*. Brooker and Friend Ltd.
- Waitangi Tribunal, D. of J. (1991b). *Ngai Tahu Land Report*.
- Williams, J. (2010). Mahika Kai: The Husbanding of Consumables by Maori in Precontact Te Waipounamu. *The Journal of the Polynesian Society*, 119.
- Wilson, J. (1912). *Reminiscences of the Early Settlement of Dunedin and South Otago*.

Appendix A Accidental Discovery Protocols



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