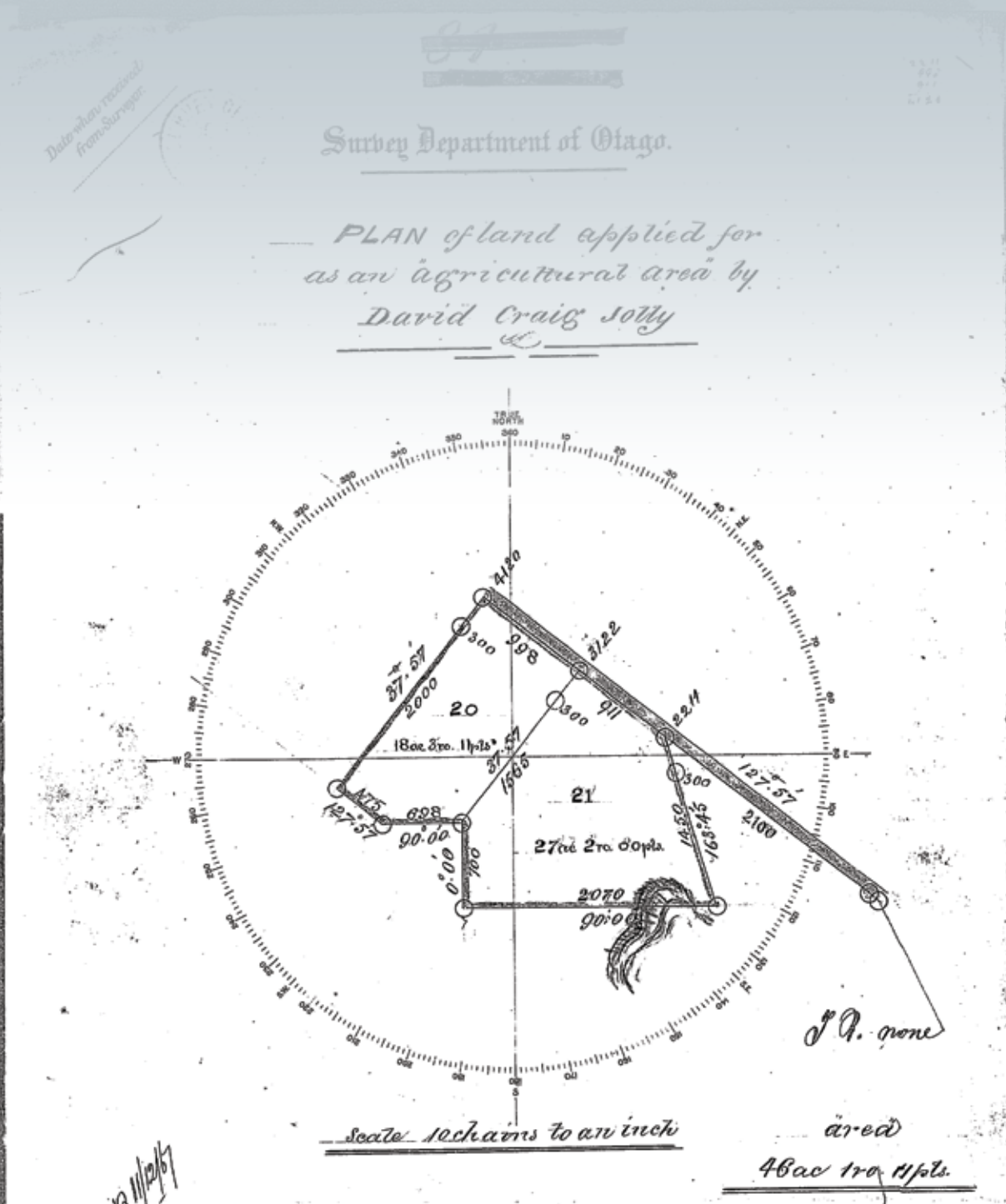


Archaeological Desktop Assessment for Morven Ferry Road, Arrow Junction

May 2025



A Desktop Archaeological Assessment for Morven Ferry, Arrow Junction

Archaeological Sites: F41/62

Commissioned by Camerson Hodgson on behalf of Gibbons Co

Prepared by Riley Christie

Reviewed by Russell Cook

Origin Consultants Ltd

20 May 2025

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Introduction

This desktop archaeological assessment has been prepared for Camerson Hodgson on behalf of Gibbons Co in relation to the potential development of 122 Morven Ferry Road, Arrow Junction, known as the Doonholme Estate. The site has one currently recorded archaeological site, F41/62, which includes the historic homestead, woolshed, stone wall and outbuildings. However, there are deemed to be potential further unrecorded features within the wider land parcels adjacent to the Kawarau River. The Kawarau River was extensively exploited early in the 19th century during the Otago Goldrush, and it is highly likely that some features related to this remain present today.

Most of the current site (Original Sections 20, 21, 24, 25, 35, 69 Block VIII) was obtained by Crown Grant by David Craig Jolly in 1875, though surveys from 1865 show Jolly as already occupying the land, likely through lease. It is likely that some of the extant farm buildings were constructed early in his ownership of the land. Unfortunately, information surrounding activity at the property in the 19th century under the ownership of David Jolly is limited, with no surveys or maps showing locations of water races or other early utilities associated with the property. It is also considered likely that archaeological features related to the Otago Goldrush are present near the banks of the Kawaru River with some minor potential along Morven Hill due to the estate's proximity to Arrowtown, the Arrow River, and the Kawarau River all which had significant gold mining activity from approximately 1861 and onward. Based on known historical trends it is likely that archaeological features are present in areas adjacent to the river.

Overall, the area surrounding the homestead, inclusive of the historic farm buildings and stone walls, will require an archaeological authority for any earthworks or works which may impact the buildings or walls, though it is noted that the intention is to preserve the pre-1900 buildings. There is also the potential for subsurface refuse deposits to be encountered in the areas immediately surrounding the homestead. It is further recommended that the areas adjacent to the Kawarau River and Morven Hill be surveyed by an archaeologist prior to any works being undertaken and in preparation for the Fast Track substantive application process in order to determine if archaeological features are present and if an archaeological authority may be required.

The legal descriptions of the assessed land parcels are:

- Lot 2 DP 601937
- Lot 3 DP 529201
- Lot 5 DP 300661
- Section 23, 71 Block VIII
- Section 21, 24 Block IX
- Section 64 Block VIII Shotover Survey District
- Section 22 Block IX Shotover Survey District
- Section 23 Block IX Shotover Survey District
- Section 1-2 SO 478164
- Section 25 Block IX Shotover Survey District
- Lot 3-4 DP 300661
- Section 1 SO 420327
- Lot 4 DP 529201
- Lot 1 DP 411193

The purpose of this assessment is:

- to identify the history and nature of any archaeological features that may be affected by future excavations;
- to provide appropriate recommendations for which areas of the site would likely necessitate an archaeological authority for works to occur;

- to designate areas where an archaeologist would likely need to physically and visually inspect the landscape in order to identify potential archaeological features prior to any potential development.

The author of this report is Riley Christie, Archaeologist at Origin Consultants Ltd and a member of the New Zealand Archaeological Association.

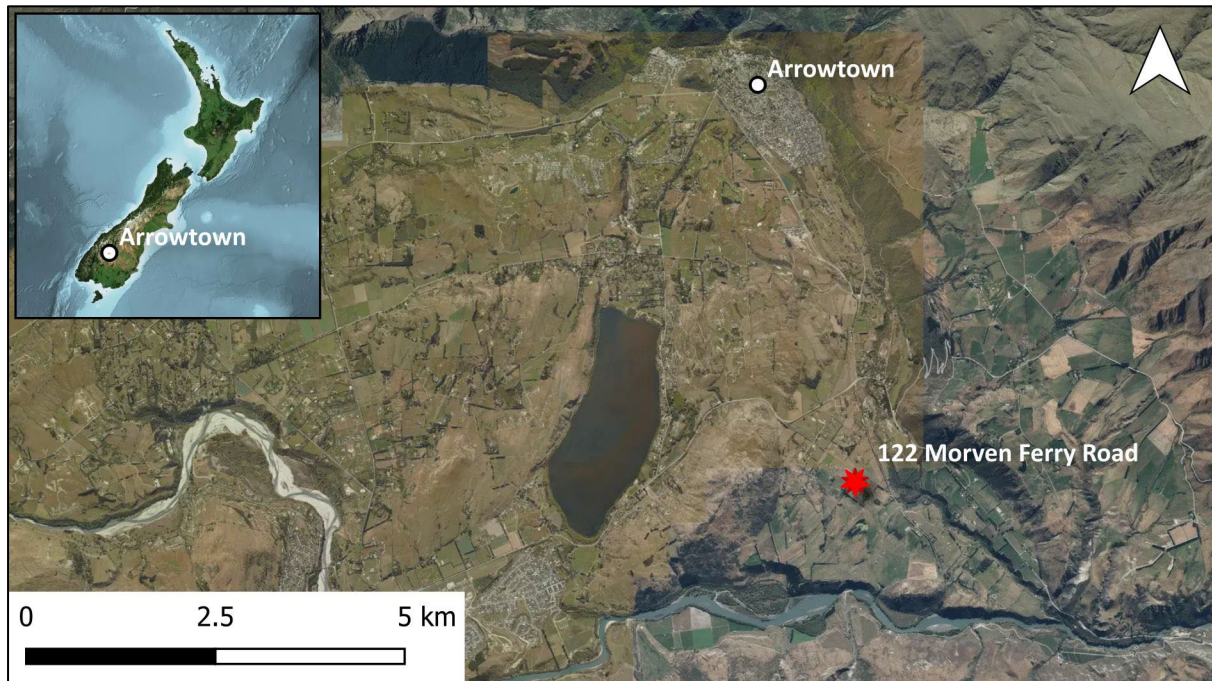


Figure 1. Map of site location in relation to Arrowtown and wider NZ.

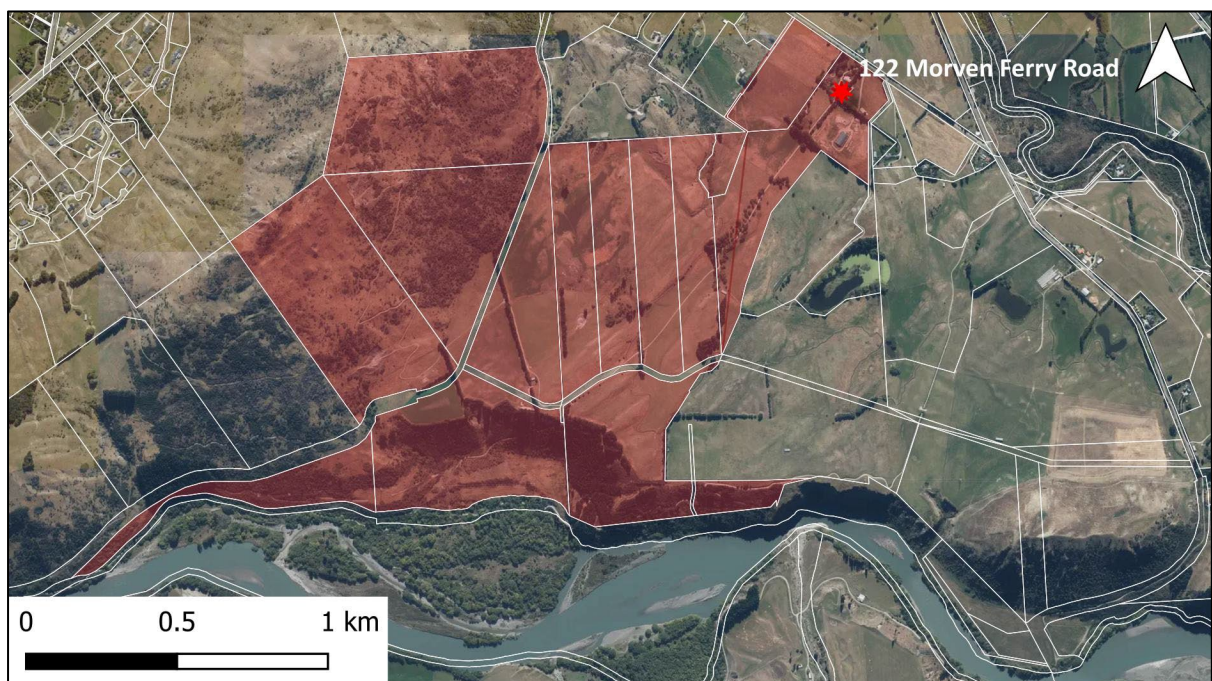


Figure 2. Site location and boundaries.

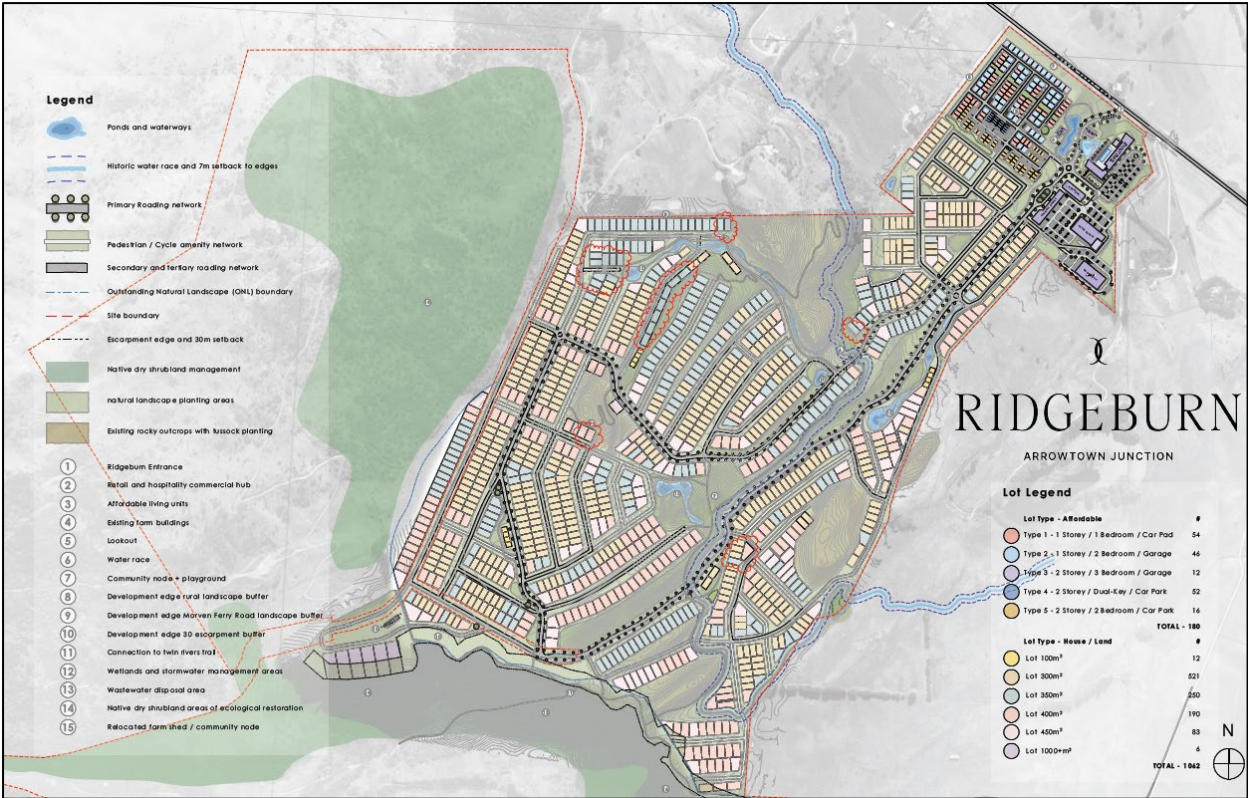


Figure 3. Extent of the proposed project area, provided by Gibbons + Novak and Middleton.

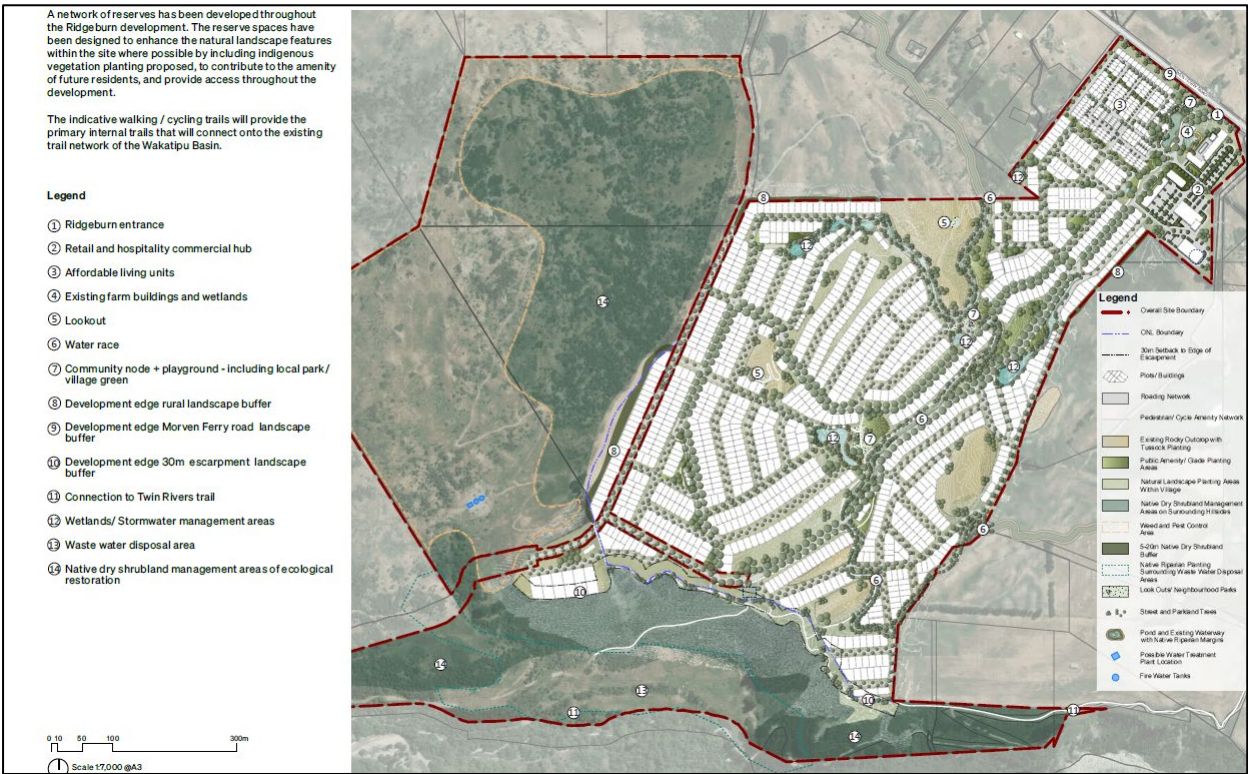


Figure 4. Landscape master plan, provided by Gibbons and Rough Milne Mitchell Landscape Architects

Statutory Framework

There are two main pieces of legislation in New Zealand that control work affecting archaeological sites. These are the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA 2014) and the Resource Management Act 1991 (RMA 1991). Heritage New Zealand Pouhere Taonga (HNZPT) administers the HNZPTA 2014.

Archaeological Sites

The HNZPTA 2014 contains a consent process for any work affecting archaeological sites (archaeological authority). An archaeological site is defined 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).

Any person who intends to carry out work that may damage, modify or destroy an archaeological site, or to investigate a site using invasive archaeological techniques, must first obtain an archaeological authority from HNZPT. The process applies to sites on land of all tenure including public, private, and designated land. The HNZPTA 2014 contains penalties for unauthorised site damage or destruction.

The archaeological authority process applies to all sites that fit the HNZPTA 2014 definition, regardless of whether:

- the site is recorded in the NZ Archaeological Association Site Recording Scheme or registered by HNZPT;
- the site only becomes known about as a result of ground disturbance; and/ or
- the activity is permitted under a district or regional plan, or a resource or building consent has been granted.

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 Environment Court's decision within 15 working days of receiving notice of the decision.

HNZPT may impose conditions on the authority that must be adhered to by the authority holder. However, provision also exists for a review of the conditions. 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 landowner must give notice to HNZPT and advise the succeeding landowner of the authority, its conditions, and terms of consent.

Historic Heritage

HNZPT also maintains the New Zealand Heritage List Rārangi Kōrero of Historic Places, Historic Areas, Wāhi Tapu, Wāhi Tapu Areas, and Wāhi Tūpuna. 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 RMA 1991.

The RMA 1991 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 wellbeing of today's communities while safeguarding the options of future generations. The protection of historic heritage from inappropriate subdivision, use, and development is identified as a matter of national importance in section 6(f).

Historic heritage is defined as those natural and physical resources that contribute to an understanding and appreciation of New Zealand's history and cultures, derived from archaeological, architectural, cultural, historic, scientific, or technological qualities.

'Historic heritage' includes:

- historic sites, structures, places, and areas;
- archaeological sites;
- sites of significance to Māori, including Wāhi Tapu, Wāhi Tapu Areas, and Wāhi Tūpuna; and
- surroundings associated with the natural and physical resources.

These categories are not mutually exclusive, and some archaeological sites may include above ground structures or may also be places that are of significance to Māori.

Where resource consent is required for any activity, the assessment of effects is required to address cultural and historic heritage matters (Schedule 4, RMA 1991 and District Plan assessment criteria).

Methodology

The archaeological assessment for the Ridgeburn development was carried out using solely desk-top research methods in order to prepare an evaluation of areas of the site with archaeological potential. The desk-top assessment consulted several historic sources to try to establish and clarify the historical development and chronology of the site. These included:

- Online and physical archives, including PapersPast and reports held by Heritage New Zealand;
- NZAA site records (via ArchSite), to identify the details of any previously recorded archaeological sites in the vicinity;
- Historic survey plans (via QuickMap) and historic aerial photographs (via Retrolens); and
- Modern aerial photographs (via Google Maps, Google Earth and LINZ Data Service).

Constraints and Limitations

The key constraints and limitations on the archaeological assessment for 122 Morven Ferry Road are considered to be as follows:

- This assessment is based upon desk-based research – no site visit or intrusive or investigatory work into the sites or environs has been undertaken to confirm the results of the assessment.
- Access restrictions meant it was not possible to view the private properties that make up part of the site.
- No images have been able to be located that clearly show the site prior to 1900.
- The scope of the history was limited by reasonable time and budget constraints.
- Illegibility of certificate of titles limited knowledge gained of names and information about landholders and transmission details.

Physical Environment or Setting

The physical environment of the wider site, with the entrance situated at 122 Morven Ferry Road, Arrow Junction, Queenstown, has varied topography and comprises some of Morven Hill. This gives the site varied elevation, ranging from 350m-750m above sea level. There is a natural terrace and bank extending down to the Kawarau River. The site contains a currently or recently in use water race that extends through the property, and there appears to be tailings at one point in the property based on information memorandum imagery. The farmland is predominantly flat, with some mounds and small hills throughout the site. It is not clear as to whether all of the landscape undulations are natural.



Figure 5. LINZ topographic map of site area, facing north.

Historical Background

General Background

The earliest human occupation of the South Island and Otago region is considered to be by Polynesian settlers dating from around 1280AD who quickly spread across the region, developing different types of settlement sites dependent on the available local resources and environmental conditions (Wilmshurst *et al.*, 2008). These included kāika nohoaka along the coast adjacent to rich and sustained food resources such as seals and moa; seasonal inland sites for collecting stone resources and hunting; and comparable seasonal coastal sites for 'fishing and moa processing' (Hamel, 2001). Over time, much of the forest along the coastal region reduced in extent; there were changes in patterns of hunting and fishing; and an increasing use of smaller, more mobile occupation sites by the 16th and 17th centuries. This was followed by further changes in subsistence, based on organised food gathering and processing that created kāika nohoaka along the Otago coastline from the mid-18th century onwards (Hamel, 2001).

Early use of the Whakatipu Basin by mana whenua is well established from archaeological, historical, and traditional sources. Interior expeditions by mana whenua were undertaken for a range of purposes, but most predominately for the collection of resources, which were then frequently brought back to kāika near the coast. Expeditions into the interior were often by foot, with the return journeys being made using rafts down the rivers to the coast. Occupation and use of the area by mana whenua has resulted in multiple archaeological sites across Central Otago which exhibit the material remains of these expeditions (Hamel, 2001).

Across the region there were numerous ara tawhito (traditional pathways), and several sites of semi-permanent residence located near the Central Otago lakes. Ka-muri-wai (the Arrowtown Flat) and the Haehaenui (Arrow River) were recorded as good hunting grounds for weka. The land around Arrowtown was acquired by the Crown in 1848 through Kemp's purchase.

After the arrival of Europeans in New Zealand, an initial exploration of the basin was undertaken by Nathaniel Chalmers in September 1853. By the end of the 1850s European pastoralists had begun to stake out claims to various runs in the area, taking up the depasturing licences on offer. In 1859 Rees built a homestead and woolshed on the lake shore in the location of present day Queenstown to act as the centre of his large pastoral holdings (Griffiths, 1971).

This initial settlement was quickly followed by the Otago goldrushes of the early 1860s, which brought large numbers of miners to the area. Gold was discovered in the Arrow River, and William Fox became known as the man who found it. The real discovery of gold was made by Jack Tewa, better known as 'Māori Jack', who was working at Rees' station at Queenstown Bay. After Jack had shown Rees a sample of gold from the river, John McGregor and Thomas Low, who were visiting Rees' station, found gold in large quantities in the Arrow Gorge. Fox arrived shortly afterwards, and the discovery got out after he visited Dunstan for supplies. The mining settlement that sprang up at the site of Arrowtown was first known as Fox's. By the end of 1862 there were 1,500 men camped at the Arrow amongst a sea of canvas tents (Hall-Jones, 2005)(Figure 6).

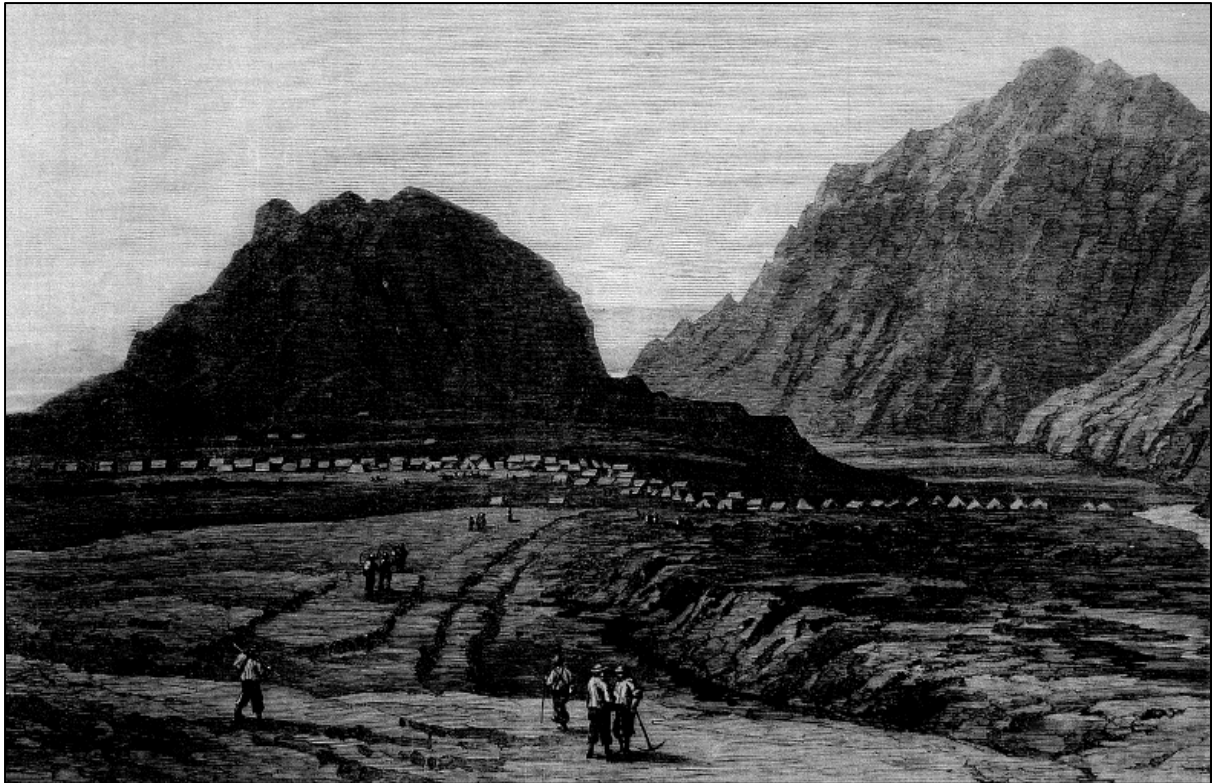


Figure 6. Early wood graving of Arrowtown during the gold rush and the 'sea of canvas tents' (Alexander Turnbull Library).

With the explosion in the mining population came the need for food and the gradual establishment of a more settled community. In 1862, James Flint at Glenpanel near Lake Hayes, harvested the first grain crop in the district. The Wakatipu basin provided space for agriculture, and formal survey of the land in 1864 made land available for development. Speargrass Flat, the area north of Lake Hayes, provided fertile ground for agriculture with ample water supply in natural waterways and mining water-races. An 1865 topographical sketch of the Shotover District shows the general location of farms and main roads. Many of these farms were established in the first years of the gold rush to provide food to both the local population, and further afield. These farms initially focused on a mix of cereal and vegetable crops, with grain very quickly becoming the main crop grown around in the basin. As a result, three flour mills were set up in the area; Bendix Hallenstein & J.W. Robertson's Brunswick Mill at Frankton (1867), William & Robert Gilmore's Wakatipu Mill on Hayes Creek (1870), and Peter & John Butel's mill near Arrowtown (now on the Millbrook Estate) (early 1870s). These mills actively encouraged farmer through cash advances to establish wheat crops (Thornton, 1986). The Wakatipu District soon became the foremost wheat growing region in the country.

Following the rapid increase in population created by the gold rushes, the population declined and stabilised for the rest of the 19th century. Farmers and run-holders were significantly impacted by the introduction of rabbits, which reached plague proportions in combination with a national economic depression during the 1880s. Farmers in the Speargrass area continued to produce mixed crops, with a gradual shift towards pasture for sheep. Following the initial establishment of farms in the 1860s and early 1870s, the land boundaries appear to have been relatively unchanged, and many of the same owners worked the land into the early 1900s, where they were then passed on to their children. As such, there are a small number of family names strongly associated with certain geographical areas within the basin.

Project Area Specific History

The following section deals with the specific history of the project area focusing exclusively on the European Colonial period as no Māori occupation has been recorded within the area. It should however be noted that this absence of a recorded site does not indicate an absence of potential as manawhenua were known to traverse and occupy the landscape prior to the arrival of Europeans. The land parcels associated with the currently proposed area have varied degrees of archaeological potential, and as such, conducting works in various areas of the site have different likelihoods of necessitating an archaeological authority. In stating this however, it is important to note that due to the desktop nature of this evaluation, a physical appraisal of the environment and potential features not visible from aerial imagery is not possible.

There are some differences seen between the historic and modern legal parcels, which for clarity, has been mapped in Figure 7 and described below.

- Lot 2 DP 601937 (Originally Pt of Sections 21 and 24 Block 8)
- Lot 4 DP 529201 and Lot 1 DP 411193 (Originally Section 20 Block 8).
- Lot 3 DP 529201 (Originally Pt of Sections 24 and 66 Block 8)
- Lot 5 DP 300661 (Originally Section 66 Block 8)
- Section 23, 71 Block VIII
- Section 21, 24 Block IX
- Section 64 Block VIII Shotover Survey District
- Section 22 Block IX Shotover Survey District
- Section 23 Block IX Shotover Survey District
- Section 1 SO 478164 (Originally Part of Sections 84 and 88 Block 9)
- Section 2 SO 478164 (Originally Pt of Sections 35 and 84 Block 9)
- Section 25 Block IX Shotover Survey District
- Lot 3 300661 (Originally Pt of Sections 35 and 84 Block 9)
- Lot 4 DP 300661 (Originally Section 84 Block 9)
- Section 1 SO 420327 (Originally Crown Land)

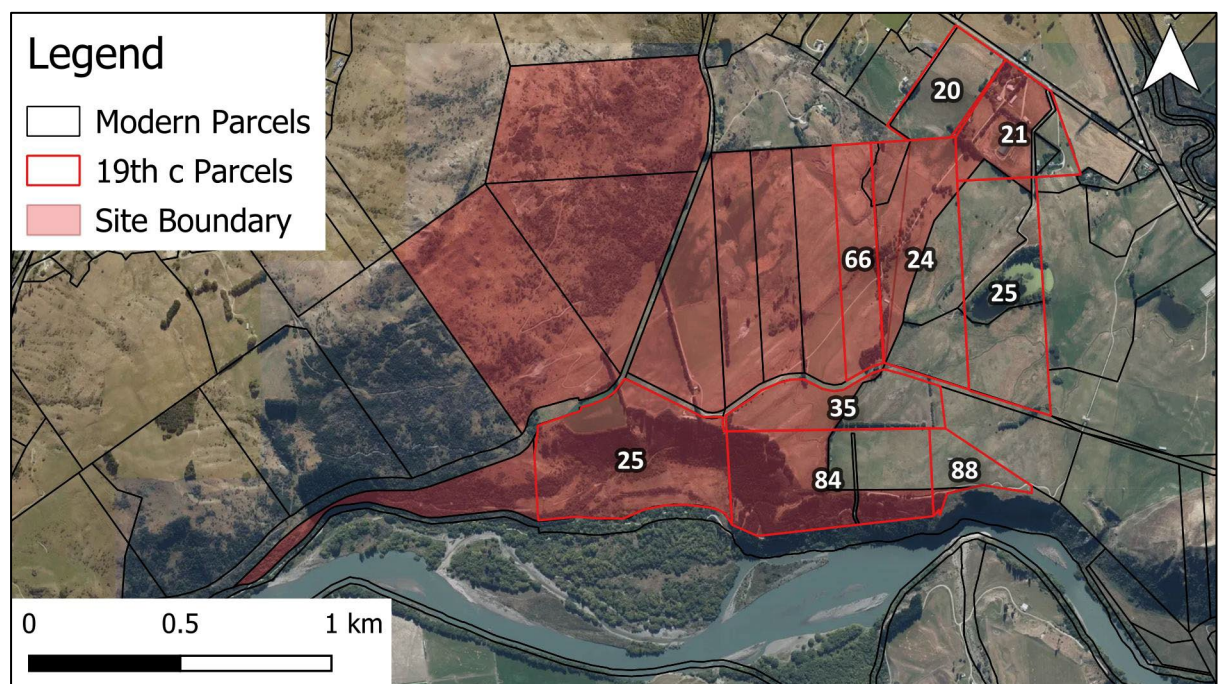


Figure 7. Historic land parcels overlaid with modern boundaries - Where not noted it is the same as the original parcel.

Stewart Angelo, David Craig Jolly, Borthwick Robert Baird, James Whelan and Henry Steel all had agricultural leases in the area associated with the modern property parcels, some of which transitioned into Crown Grants in the 1870s (SO6385; OT31/140; OT53/81). This demonstrates the long-term agricultural use of the area, which lessens the likelihood of significant structures being present in the landscape prior to this usage. David Jolly was the most significant landholder of these figures, and as the 19th century went on, he would acquire the majority of land parcels associated with the modern section.

Jolly would be present on the property from at least 1867 as per SO6385, though it appears that he was already occupying the land by this point. As per certificate of title OT31/140, by 1875, Jolly owned Sections 20, 21, 24, 25, 35 and 69 Block 8. Section 21 Block 8 is the parcel originally associated with the historic farm buildings. He would in the later 19th century and early 20th century apply to purchase further sections 84 and 88 Block 9. He would retain these sections until his death in 1903, upon which they were transmitted to his son, William Jolly. Due to illegibility within the Certificate of Title, further details of further transmission are unable to be stated with certainty. John Brown Hamilton then took over the full ownership from the previous title OT31/140 in 1949, and his son, William Alan Hamilton would then take over in 1967 (OT399/44). Sections not visible in the main Title document, for example, 21, 22, and 23 Block IX may have been acquired or managed by the Hamilton's earlier, with some attained after the purchase of the main farmstead buildings.

As for the less significant land holders in the area in relation to the titles associated with the modern property extent; these included the aforementioned Stewart Angelo, David Craig Jolly, Borthwick Robert Baird, James Whelan and Henry Steel (OT47/185; OT53/81; OT47/145) (Archives NZ: R14635806, R13287782). While they had less significant areas of land in relation to the modern boundary, some of this land included the Morven Hill Parcels, though with some Certificate of Titles relating to the Morven Hill parcels, the writing is not legible enough to make out. These parcels would be used predominantly for grazing and obtained by the Hamilton's in the 20th century. Angelo is also referenced as the owner of "Morven Hill Farm" in 1877, though it is unclear which land parcels this is referring to (Lake County Press, Volume VI, Issue 340, 27 December 1877, Page 2).

Sale of Cattle and Horses AT MORVEN HILL FARM. TH J. BARRY and CO have received instructions from the Proprietors to Sell by Auction, at Mr. Angelo's Morven Hill Farm. Arrow Junction. On SATURDAY, Dec. 20, 1877 (Lake County Press, Volume VI, Issue 340, 27 December 1877, Page 2).

Of note from Angelo's tenure as partial owner was a water race application from Cornish creek Arrow River was in 1889. No modern reference to the location of this creek or race has been identified (R24046028), though it may have run along Morven Hill. The currently operational race in the mid-section of the property is most likely to be associated with the Arrow Irrigation Scheme (Borrell, 2021) and therefore is 20th century in nature.

The following 19th century newspaper reference demonstrates the gradual acquisition requests for Jolly to take on more Grants/Titles for the already leased agricultural land he had in the area.

"Applications from Mr John Cameron, Shot-over, -Mr Joseph Clark, Crookston, and Mr David Craig Jolly, Shotover, to purchase certain lands held by them under agricultural Lease, were approved. "(Otago Daily Times, Issue 4099, 8 April 1875, Page 3).

"Three weeks from the date hereof application will be made to the Otago Waste Lands Board to Purchase the undermentioned Section held by me under Agricultural Lease No. 1389 c:— Section 84, Block VIII., Shotover Survey District, comprising fifty-three acres or thereabouts. DAVID CRAIG JOLLY, Arrow Flat, Farmer (By his Agent, Henry B. Smith). The above application will be heard at the Court house, Arrowtown, on the 26th day of October 1882." (Lake County Press, Volume XI, Issue 594, 26 October 1882, Page 1)

"The application by David Craig Jolly to purchase for cash section 88, block VIII, Shotover district, was referred to the ranger for report." (Otago Daily Times, Issue 12449, 4 September 1902, Page 6).

"Application for an Agricultural Lease. District of Arrow, August 4th, 1879, To the Warden at Arrowtown T Hereby apply for a Lease of Land for Agricultural purposes situate between Sections 34 and 35, Block VIII., Shotover Survey District, and the Kawarau. River, being part of ,Section 25 Block VIII Shotover Survey District,

and comprising fifty acres or thereabouts, in accordance with the Agricultural Lease Regulations made under The Mines Act 1877. DAVID CRAIG JOLLY, Farmer, Arrow Junction. The above application will be heard at Arrowtown on the 25th day of August 1879." (Lake County Press, Volume VIII, Issue 430, 7 August 1879, Page 3)

Though specific ownership of sections in the area is hard to ascertain due to illegibility in historic records and ambiguity in archival newspaper articles, it is clear both Angelo and Jolly had significant farms/agricultural leases in the area in the 19th century. Though valuation records do not give insight into the age of the buildings associated with the historic section 21 Block 8, it is likely these were constructed during Jolly's lease in the 1860s.

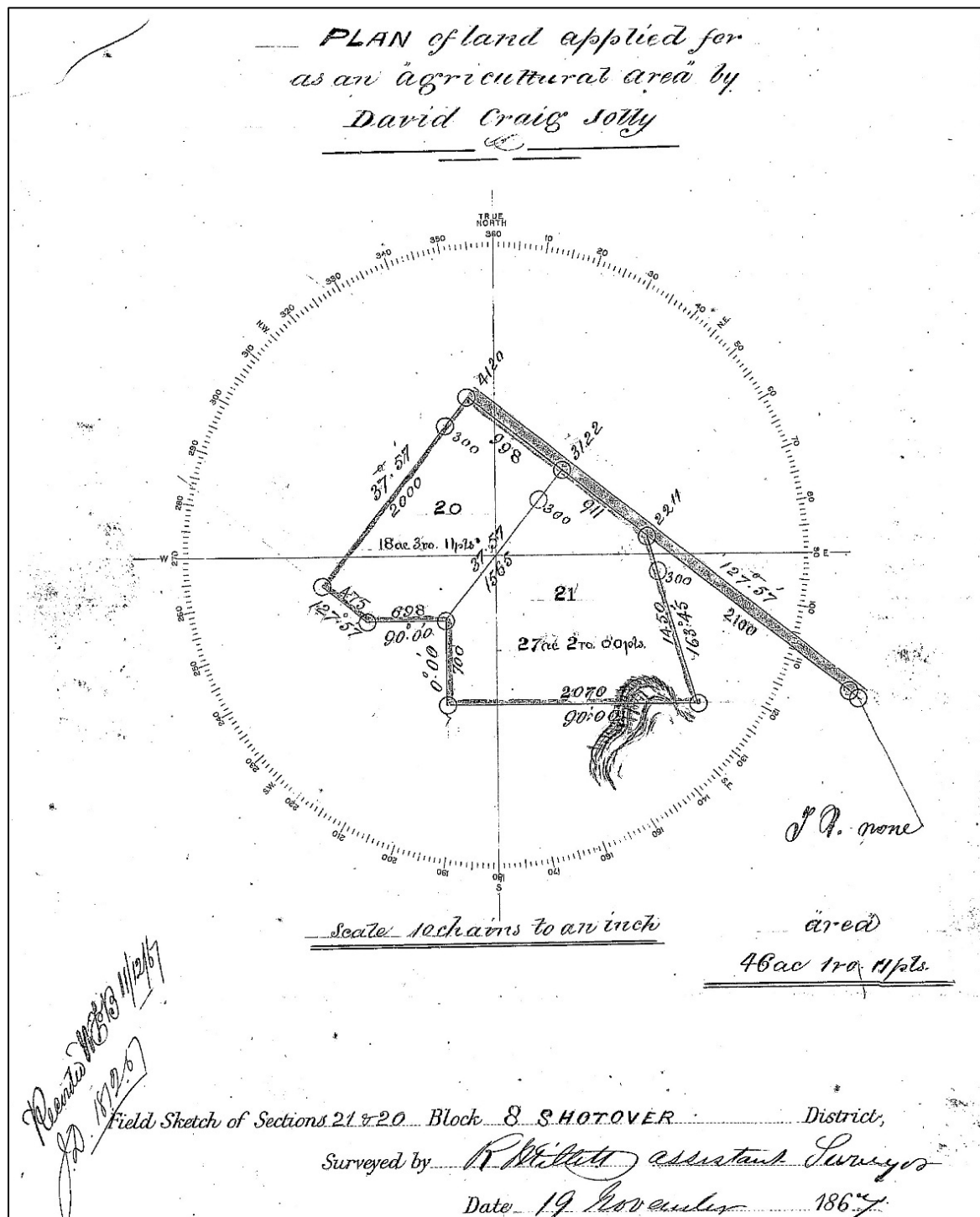


Figure 8. SO 6385, 1867, Land applied for as agricultural by David Craig Jolly.

History of Extant Buildings

The following building history has been provided by Justin Dubbeld of Novak + Middleton (Dubbeld, 2025), which references the following resources as the main source of information:

“Hamilton, A.,(2016). The History of Doonholme Farm: Hammy’s yarns and memories of life on the farm, 1940’s to 2016. Alan Hamilton Queenstown Lakes District Council (Personal Communication Property Records, April 11, 2024).”

“Doonholme Farmhouse

The early Doonholme farm cottage was likely built circa 1865 -1867 by the first leaseholder David Craig Jolly. Jolly is recorded as the leaseholder of the property in the 1865 survey and later obtained the crown grant for the land in 1875 (Hamilton, 2016). The house was constructed of locally sourced stone schist and mortar by local stone masons. The original house is likely to have started life as a smaller Scottish influenced stone croft / cottage with a veranda, two chimneys and matching gabled ends. This earlier gabled form construction can be clearly seen to the left of the photo in figure 3. In Alan Hamilton’s book ‘The History of Doonholme Farm’ he refers to the stone gabled form that runs at right angles to the original cottage likely being an alteration undertaken by Jolly later in the 1870s. Hamilton’s book reveals that a number of original cottage window openings were made larger and renewed at the time his parents Jack and Lou Hamilton moved onto the farm circa 1946. The early roof of the smaller cottage was revealed, in a 1986 alteration, to have been constructed using timber shingles that had later been roofed over with corrugated iron (Hamilton, 2016). The Queenstown Lakes District Council records show that the cottage underwent two significant alterations post 1946. The most significant alteration was in 1986 with the re-pitching of the roof over the early cottage and a second story with roof dormas added (QLDC, 2024).

Doonholme Farm Stables

The original Doonholme Farm Stables were likely built circa 1865 -67 in conjunction with the original farm cottage by the first leaseholder David Craig Jolly. Constructed of locally sourced stone schist and mortar by local stone masons. The photo in figure 6 clearly shows the un-altered stone schist walls with unsymmetrical gabled form and corrugated iron roof. This form is typical of the agricultural ancillary farm buildings of this period in the district. The photo in figure 7 indicates what appears to be part of the left hand section of schist wall having been replaced with timber frame and cladding. Queenstown Lakes District Council records show that significant alterations were undertaken in 1963 (QLDC, 2024). These significant alterations were likely due to Jolly’s stables being converted into a woolshed. The alteration included the addition of two shearing machines and a sheep yards. Hamilton’s book also notes that remnants of the original schist flagstone floors are still partly in existence along with the stables stall poles where the horse collars, hames & halters were hung (Hamilton, 2016). The photo in Figure 8 shows how the now woolshed survives today. A higher corrugated iron extension to the rear and a lightweight single storey timber framed garage to the end of the original stone gable end has now been added.

The Museum

The building now named ‘The Museum’ is referenced in Alan Hamilton’s book to have been originally a small modest cottage that provided early accommodation to the leaseholder David Craig Jolly. The stone remnants of this building are likely to be some of the earliest stone masonry that exists on the property (Hamilton, 2016). It is unknown what the original built form of the small cottage was. Alan Hamilton writes about restoring the cottage for his children to use as a playhouse.

Open Bay Shed / Hay Barn

The open nine bay shed / hay barn is a later addition to the earlier agricultural buildings around the farm. Alan Hamilton’s book refers to some of the barns and sheds on the property being constructed in part from timber milled from the property. The shed is an example of a New Zealand rural vernacular, clad in corrugated iron with timber cross braced bays (Hamilton, 2016).”

Gold Mining History

Documentation relating to gold mining history within the project area is limited. SO1503 from 1865 shows the land adjacent to the banks of the Kawareu as being an “Auriferous Reserve” meaning it had been set aside specifically for mining claims (Figure 9). Unfortunately, there is little surviving documentation on early mining claims. Most early claims were modest affairs, being of a size and scale capable of being worked by hand by a limited number of men. As such, while it is likely that some gold mining occurred within the reserve, the documentation surrounding it does not exist.

By the 1880s and 1890s the nature of mining had changed becoming much more industrialized and employing complicated hydraulic equipment. Claims were also much more formalized and well documented. There is a noted occurrence where the following application was deposited in archives NZ, “Application for cancellation of special claim - Stewart R Angelo, David C Jolly, William Lyons, John Cockburn - Kawareu District – 1891” (Archives NZ: R24046600). Special claims do generally refer to mining activities, and as such, while no specific area is given apart from the Kawareu District, it is implied that key figures in land holding in the area, Jolly and Angelo, may have had some mining association in the Kawareu and may have been active within the project area. Directly south of the project area, five mining claims adjacent to the Kawareu but on the opposite bank were taken out in the 1880s and 1890s, see Figure 10 - Figure 15. Based on the available information, the highest potential locations for mining activity within the proposed project area are the sections adjacent to the Kawareu River and Morven Hill. Additionally, it appears that potential tailings are visible on the site as demonstrated in the memorandum, though their location and extend will need to be confirmed by a pedestrian survey. The area immediately south and west of the main farmstead was predominantly used for agricultural purposes, with no evidence of mining activities.

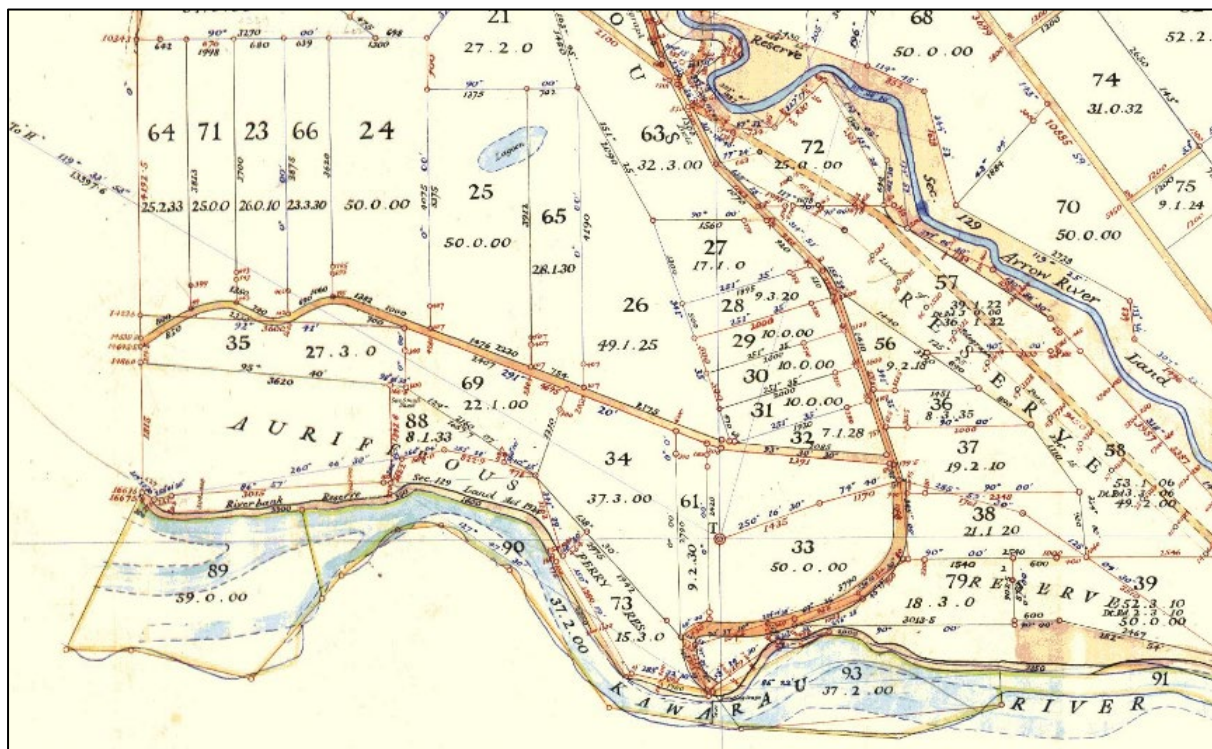


Figure 9 Block 8 Shotover SD - SO 1503, 1865, relevant parcels; Sections 35, 69, 88, 64, 71, 23, 66, 24, 21, 20, 25, Block 8. Note the Auriferous Reserve along the Kawareu River.

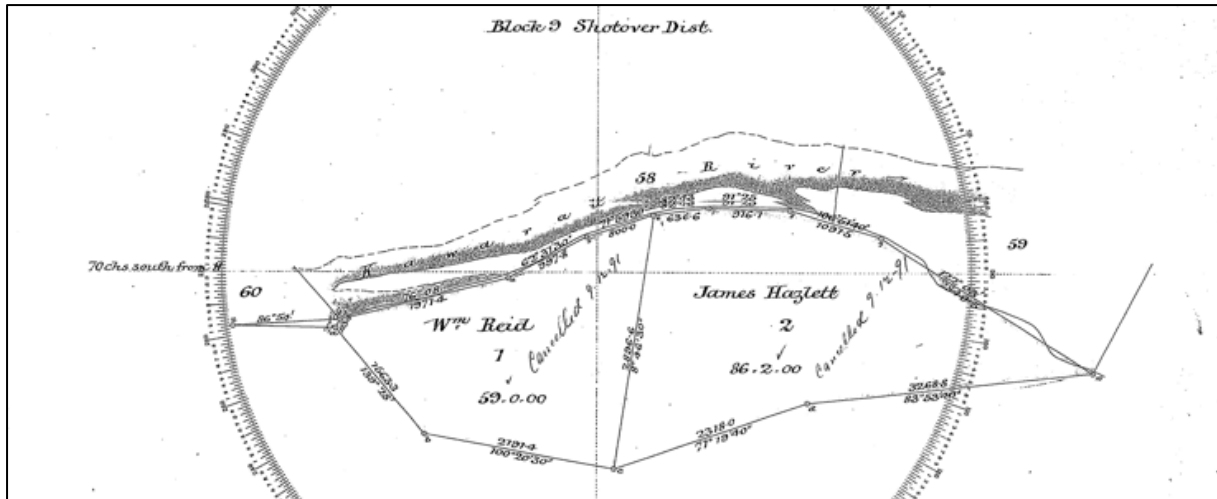


Figure 10. Mining claim taken out by W Reed and James Hazlett, 1889, SO 4692.

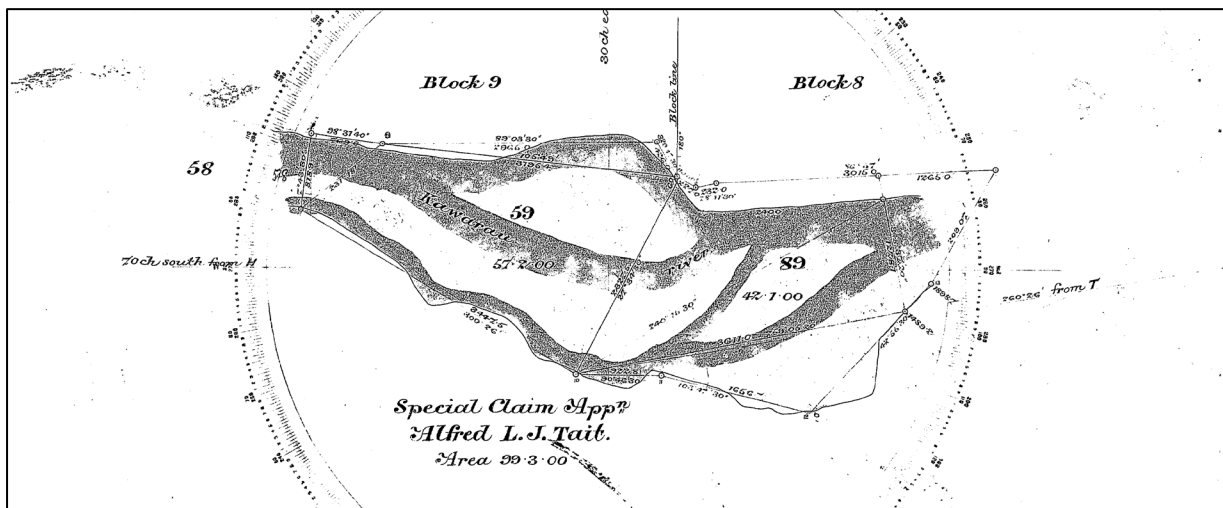
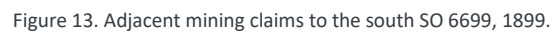


Figure 11. Adjacent mining claim taken out by Alfred Tait, 1897, SO 6731.



Figure 12. Adjacent mining claim, SO 6746, 1899.



Additionally, an examination of historic aerial photography from the 1950s shows the landscape mostly devoid of vegetation growth. One such image shows the section of embankment leading down towards the Kowarau as having potential sluicing remains present along its face (Figure 16). Modern aerals with higher resolution also show a potential former building location possibly associated with gold mining, though it may also be a modern silage pit or other farming feature (Figure 17).

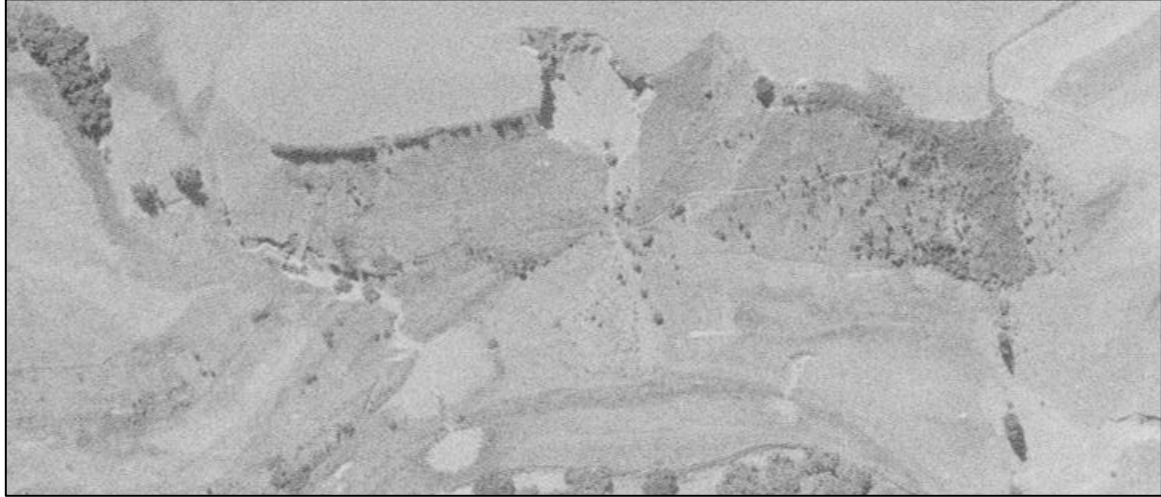


Figure 16. Potential mining features within site boundary adjacent to Kowarau.

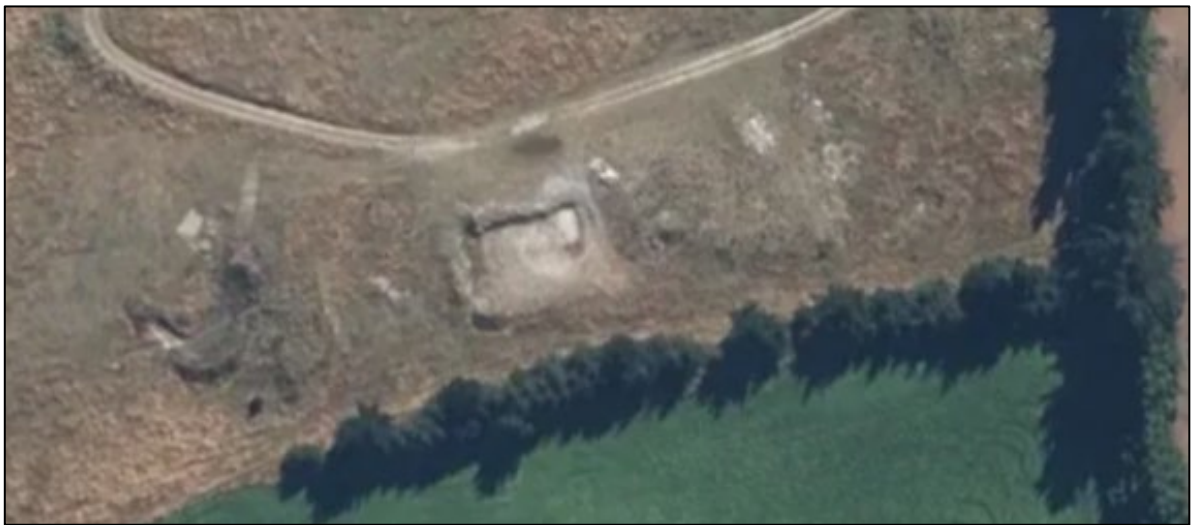


Figure 17. Possible previous structure visible in the landscape in Section 21, Block 9.

Archaeological Context

Archaeological sites recorded on NZAA ArchSite

Reference to the New Zealand Archaeological Association's (NZAA) site recording scheme, ArchSite, indicates that various sites have been recorded near the proposed site. These predominantly fall into mining and agricultural categories, which is consistent with site types present within the current assessment area.

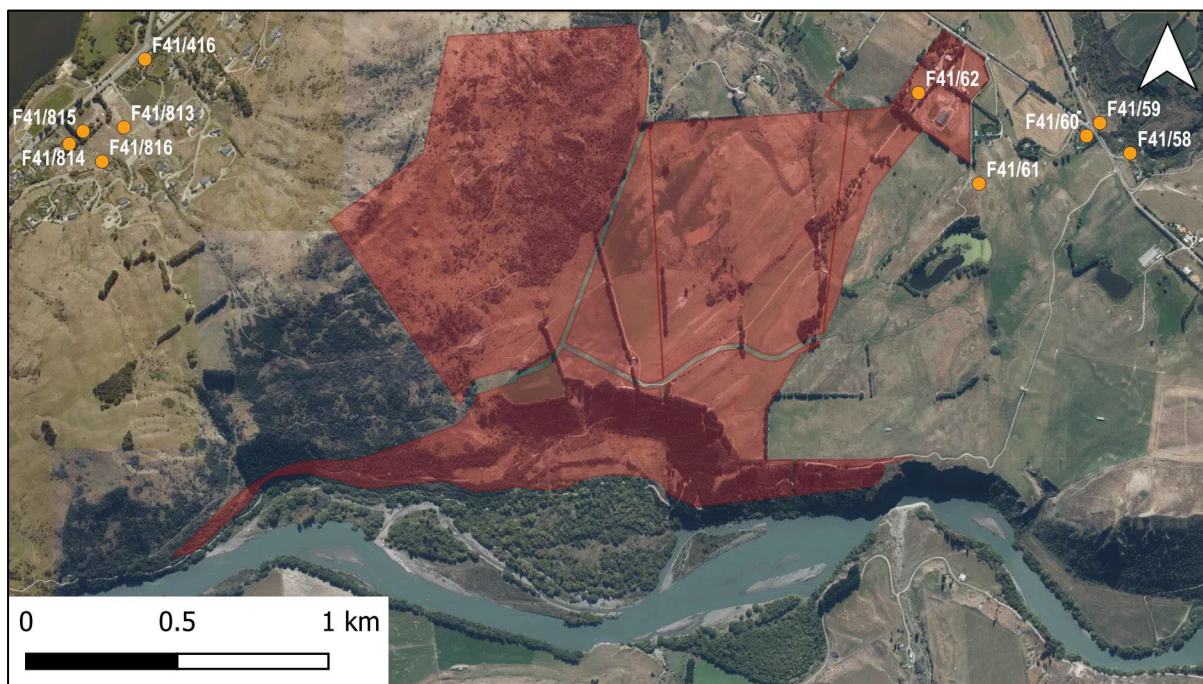


Figure 18. Map showing ArchSite recorded archaeological sites in vicinity of 122 Morven Ferry Road.

Table 1. Table of recorded archaeological sites in the vicinity of the site.

Site Number	Site Name	Site Type	Details
F41/58	N/A	Mining – Gold	Tailings 50m x 30m (Till & Wilson, 1979).
F41/59	N/A	Mining - Gold	Tailings 100mx100m 300m west of Morven Ferry Road (Till & Wilson, 1979).
F41/60	Shaw's Cottage	Historic/ Domestic	Stone stable and timber cottage built sometime around 1874 during the ownership of Robert Pritchard (Teele, 2017).
F41/61	N/A	Agricultural/ pastoral	Farm building (Harrison & Lee, 1979).
F41/62	N/A	Agricultural/ pastoral	Farm buildings/homestead likely built in 1870s/80s under ownership of David Craig Jolly (Harrison & Lee, 1979).
F41/416	Lake Hayes Hotel	Commercial	The Lake Hayes Hotel building was constructed in 1867, burnt down in 1881, and rebuilt in 1882 (Teele, 2017).
F41/813	N/A	Agricultural/ pastoral	19 th century boundary fence with augured timber posts (Petchey, 2018).

F41/814	N/A	Agricultural/ pastoral	A small stone cottage that was built by George White, probably in the 1870s or 1880s (Petchey, 2018).
F41/815	N/A	Agricultural/ pastoral	1880s Stone barn constructed by George White originally and converted into house in 1960s (Petchey, 2018).
F41/816	N/A	Agricultural/ pastoral	A section of the Bendemeer Rac (Arrow Irrigation Scheme). The Bendemeer Race was added to the scheme in 1935/36 (Petchey, 2018).

While the Doonholme Farmstead is not listed in the QLDC district plan, nor is it listed on Rārangī Korero/The List, three other sites to west site in the near vicinity to the site are heritage listed on the District Plan.



Figure 19. QLDC Operative District Plan.

Archaeological and Other Values

Archaeological Values

The archaeological values of F41/62 is presented below. If further archaeology is encountered during a subsequent survey their values will also need to be discussed here. Six main criteria have been used for assessing the archaeological values of F41/62. These are:

- Condition – the physical condition of the site and any associated features.
- Rarity/Uniqueness – the degree of rarity of the site within its immediate and/or wider contexts.
- Contextual – the contribution of the site to its broader contextual situation (eg. cultural, local, and archaeological contexts).
- Information potential – the potential for additional information to be recovered by archaeological means and its nature.
- Amenity – the potential contribution of the site as a local amenity.
- Cultural associations – the cultural associations of the site.

Table 2. Assessment of archaeological values for F41/62 – the Jolly Farmstead

Site	Value	Assessment
F41/62 – The Jolly Farmstead	Condition	The buildings associated with the 19 th century occupation are in a reasonable state of repair given their age. Assessment – Good
	Rarity/Uniqueness	Intact rural farmsteads with surviving outbuildings are relatively rare in the wider New Zealand landscape. One other similar site, F41/578 the Ayrburn Farmstead is located nearby but lacks the original 19 th century house, though several pre-1900 outbuildings are still present. Assessment – Medium-high
	Contextual value	F41/62 is not directly associated with another archaeological site or site complex. It does have some contextual association with the wider Arrowsmith landscape though, being part of the early development of the region. Assessment – Low-medium
	Information potential	The intact buildings have a high information potential as they may inform on construction and maintenance techniques of pre-1900 rural buildings as well as providing an example of how such buildings have been altered and adapted over the decades of use. There is also the potential for subsurface deposits to provide further information on the lives of the farm's inhabitants. Assessment – High
	Amenity value	The standing buildings provide a high level of interpretive and visual value, being an outstanding visual indication of the history of both the site and providing an example of what life would have been at other similar sites throughout the region. Assessment – High
	Cultural associations	The site is associated with the European colonisation of Central Otago. Assessment – Colonial European

Other Heritage Values

The wider area is understood to be of cultural value to mana whenua and this may need to be addressed as part of the substantive application requirements. If required, any assessment of mana whenua cultural values, and the potential effects of the Ridgeburn development on these values, is beyond the scope of this report and will need to be carried out by an appropriately qualified individual or institution.

Any heritage impact from the development of the project area has not been considered in this assessment. Any potential impact to the site's/building's heritage value that may be caused by development or renovation will need to be addressed in the Fast Track Approvals Act 2024 substantive application.

Assessment of Effects

Proposed works include a large scale primarily residential development, with buildings proposed up to three stories. The land parcels involved in this development include Section 24, Blk IX Shotover Survey District, Section 23, 64, 71, Blk VIII Shotover Survey District, Lot 5 DP 300661, Lot 2 DP 601937, Lot 4 DP 529201, Lot 1 DP 411193, and Lot 2 DP 601937. The extant historic buildings are proposed to be retained and restored. Please note the description of works to the historic farm buildings below has been prepared by Joshua Dubbeld of Novak and Middleton (Dubbeld, 2025). The following provides a summary of the proposed works and reuse of the buildings at the Doonholme farmstead (located in Lot 2 DP 601937).

Doonholme Farmhouse (19th century)

Reuse: Ridgeburn Community Facility: Sympathetically adapt and make the building fit for purpose to the new use. Restore the original elements of the farmhouse to achieve a similar aesthetic described in 3.1 and figure 3 (see Dubbeld, 2024). Expose and retain the original stone schist walls and gabled roof forms clad in corrugated iron.

The Woolshed (19th Century)

Reuse: Ridgeburn Hospitality Venue: The building is to remain a single storey form. Sympathetically adapt the building to the new use and restore original aspects of the original stables and woolshed. Retain original stone schist walls, floors and gabled roof forms clad in corrugated iron.

The Museum (19th Century)

Reuse: Museum, Doonholme Farm History and Information board: Sympathetically adapt the cottage to the new use and restore original remnants. Retain original stone schist walls and roof form clad in corrugated iron.

Open Bay Shed / Hay Barn (20th Century)

Reuse: River Trail Information Hub, Mountain Bike Cleaning Station, Covered Picnic Area, Public Toilets: Dismantle and relocated near the Kawarau ridge side of the subdivision. Sympathetically adapt the shed to the new use, retain the sheds form & bays. Retain original corrugated iron cladding. Refer to the master plan for the proposed new building location.

As for the wider site, as is shown in Figure 20, the Morven Hill land parcels, as well as the land parcels bordering the Kawarau will be avoided. The sections in the middle area of the site, however, will be developed for residential development. While no excavation specifications or plans have yet been produced, it can be assumed that substantial earthworks across the area in order to prepare the site will be undertaken. It is likely that any subsurface features in this area would be required to be removed entirely.

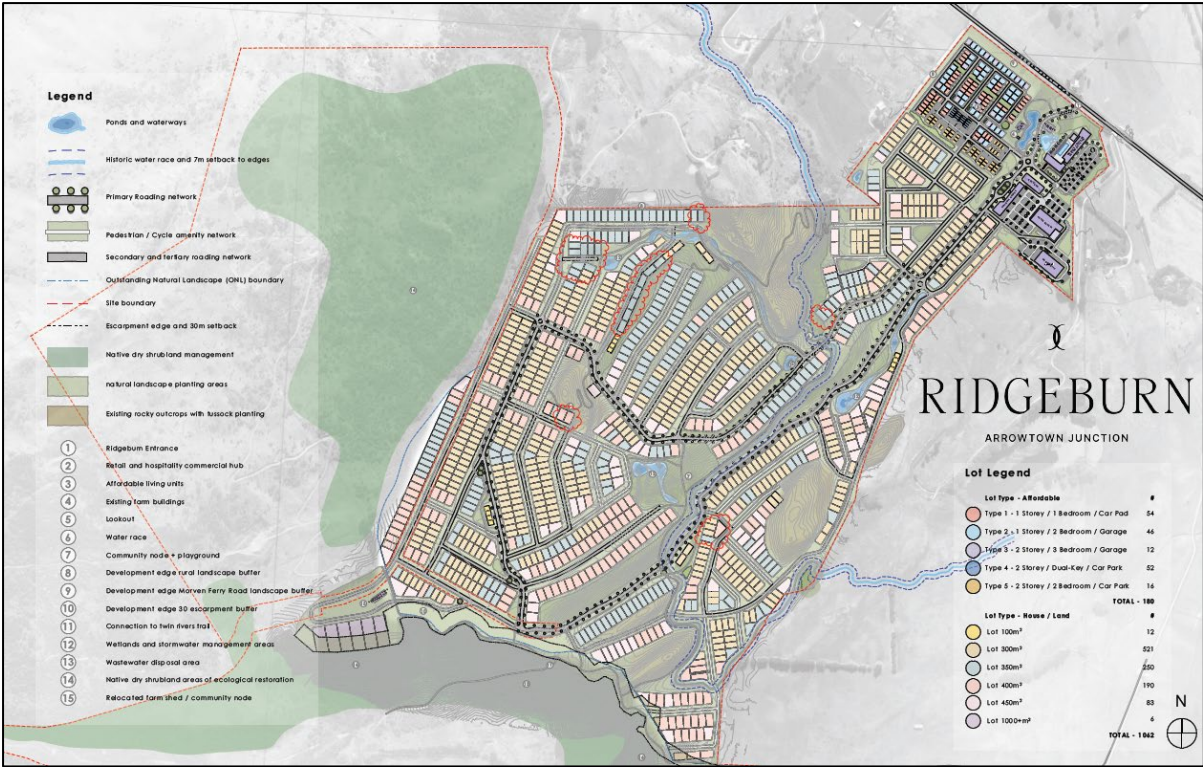


Figure 20. Figure showing location of proposed works.



Figure 21. Morven Ferry Farmstead buildings (From Novak + Middleton, 2024 - Page 2)

Effects of the Proposed Works

Sympathetic modifications to the existing 19th century farm buildings may modify some of the original material remaining in the buildings. No detailed plans for restoration have been developed as of yet, so upon the creation of these plans, consultation should be undertaken with an archaeologist to mitigate damage to the original values of the buildings. The buildings have, however, been significantly modified previously over the 20th century, and as such, restoration of some elements of the original buildings will serve to both maintain the integrity of the buildings and may also serve to highlight the original elements of the original buildings, in doing so help preserve and even return some of the original archaeological value.

Using the building for practical modern purposes will facilitate the restoration and reconstruction of the buildings, contributing to the overall restoration of the site. Maintaining buildings through utilisation can prevent degradation of historic elements. It is evident that action is needed to repair some elements of the historic buildings to prevent further damage. Repurposing and restoring the building is a feasible solution to prevent condition from worsening and showcase the historic buildings in a public setting.

Site Management

A site survey should be undertaken prior to works occurring at the site in order to assess the full scale of impact on the potential archaeological values at the site. A full assessment including a site survey and the archaeological values of any additional archaeological site should also be conducted prior to works occurring. Additionally, restricting works to the land areas predominantly associated with grazing will reduce the potential to impact subsurface or landscape archaeological features, such as may be present on Morven Hill or adjacent to the Kwarau River.

Upon the completion of a physical site survey and assessment, an Archaeological Authority should be sought prior to undertaking works at the site.

Summary and Recommendations

Summary

This report provides an overview of the history and archaeology in the vicinity of 122 Morven Ferry Road. It also offers an assessment of the site's archaeological potential and the areas in which future development may necessitate further archaeological analysis to deem whether an authority would be required. The highest concentration of known archaeological features is related to the 19th century farmstead and related outbuildings. Further areas of archaeological potential include the property immediately adjacent to the Kwarau River, the parcel located directly to the west of the farmstead buildings, and Morven Hill. The larger sections of land currently utilized for grazing are considered to have a low potential.

A full archaeological assessment and archaeological authority will be required prior to any works occurring in the area immediately surrounding the farmstead. Should the property be acquired, it is recommended that a physical survey of the landscape in the areas adjacent to the Farmstead, Kwarau River and Morven Hill be undertaken by an archaeologist, as there is the possibility that sites not visible from aerial photography or historic research could be present. Areas adjacent to the Kwarau River should be treated with high caution for development, while no mining claims for the relevant parcels have been located, the high level of activity and mining in the surrounding area means there is a very high potential for features to be encountered. From the currently constructed plans, it appears that minimal works will occur adjacent to the Kwarau, despite this only being a small area, due to the proximity of these works to the river, an archaeologist should still survey and mark potential areas of archaeology to be avoided

There is the potential for features such as tailings or 19th century water races to be present on the mid sections and Morven Hill section of the property, this would need to be confirmed by a physical survey. As no development is proposed for this area however, there is little risk to archaeology posed in this area.

The results of desktop archaeological research indicate that no buildings are visible on the low risk areas in historic aerials, and the land was applied for as agricultural land from the 1860's onward, possibly used predominantly for grazing. This does not mean there is no chance for features such as post holes, rubbish deposits or remnants of unrecorded and not visible buildings in the landscape to be present in these areas. As such, due to the early activity at the site, a site walkover and survey by an archaeologist should be undertaken to ascertain if any features in the area can be identified. It is considered that development in these areas is less likely to impact potential archaeology than areas near the Kawarau or close to the historic Sections 20 and 21 and farm buildings.

Recommendations and Areas of Archaeological Potential

The following section discusses the areas of archaeological potential. These are broken down into four categories: Low Risk, Moderate Risk, High Risk and Archaeology Recorded. Each category is discussed in greater length below. The various property parcels have been coded based on their archaeological potential as derived from available historic information. The property parcels designated as low risk are as follows: Section 24 Blk IX Shotover Survey District, Section 23, 64, 71 Blk VIII Shotover Survey District. The parcels designated as moderate risk are as follows: Section 21, 22, 23 Blk IX Shotover Survey District, Lot 5 DP 300661, Lot 3 DP 529201. High risk areas are designated as follows: Section 1 SO 420327, Section 25 Blk IX Shotover Survey District, Lot 4 DP 300661, Lot 3 DP 300661, Lot 4 DP 529201, Lot 1 DP 411193. The parcel with recorded archaeology is Lot 2 DP 601937.

Areas with Recorded Archaeology: Legal Description: Lot 2 DP 601937 (Original parcels 21 and 24 Block 8).

The recorded archaeological site references the 19th century farm buildings on Lot 2 DP 601937 (Original parcels 21 and 24 Block 8). Unfortunately, the original site record does not contain any details of the site's history, limited to observations and measurements, though as discussed above, a reasonable history of the Jolly Farmstead has now been established. While the entirety of the land parcel, namely to the south, were not encompassed within the original section which contains the farm buildings, this is still designated as having increased archaeological potential due to the proximity to the homestead. The wider adjacent areas to the historic buildings have the potential to contain features such as subsurface rubbish pits, post holes, or potentially remains of buildings that are no longer standing.

Areas with High Archaeological Potential

The following areas/land parcels are considered to have high archaeological potential; Lot 3 DP 300661, Section 25 Blk IX Shotover Survey District, Lot 4 DP 300661 and Lot 3 DP 300661. These are designated as high risk due to the intensive mining that occurred along that Kawarau in the 19th and 20th centuries and the close proximity of adjacent mining site parcels to the current property boundaries. Six mining claims in the immediate area to the south, east and west of the site area have been located.

Lot 4 DP 529201 and Lot 1 DP 411193 are also considered to be high risk. Situated directly to the west of the parcel associated with the existing farm buildings, these Lots were originally known as Section 20, Block 8, Shotover SD. This parcel was a part of the original area applied for as an agricultural lease by David Jolly in the 1860s, and due to its close proximity to the known 19th century farm buildings, there is the possibility that further buildings that are no longer standing have existing remnants below the surface. There is also the possibility for the section to contain refuse deposits or evidence of farming and occupation, post holes for example. A physical survey of this area should be undertaken prior to any works occurring.

Areas with Moderate Archaeological Potential

The areas deemed to have moderate potential are as follows; Section 21 Blk IX Shotover Survey District, Section 22 Blk IX Shotover Survey District, Section 23 Blk IX Shotover Survey District, Lot 3 DP 529201 and Lot 5 DP

300661. The areas adjacent to known occupied domestic land, but with no known or recorded sites could be locations for rubbish deposits as portions of these were within the original land parcel, Sections 21 and 24, Block 8. There is also the potential for areas such as these to have evidence of post holes or no longer standing buildings.

Areas Considered Low Risk

The following areas are deemed as low risk for encountering archaeology in the context of possible future development of the site; Section 24 Blk IX Shotover Survey District, Section 64 Blk VIII Shotover Survey District, Section 71 Blk VIII Shotover Survey District and Section 23 Blk VIII Shotover Survey District. Research for these areas has indicated that since the 1860's, they have been utilised solely or predominantly as agricultural land. This does not mean that human activity has not occurred in these areas, but indicated that due to the nature of utilisation, finding subsurface sites or features in these areas is less likely. 19th century features within the landscape may also have been modified or disturbed by grazing and farming over the years. As such, even in these areas, it is still recommended that an archaeologist undertake a physical survey of the landscape and environment to ascertain the presence of any archaeological features not perceptible from an aerial view.

While these sections are low risk for archaeological features, this does not mean there is no risk. As the entire site has been utilised since the 1860s, there is the chance that archaeological material/features could be located anywhere on site. As such, caution should be undertaken by contractors in all areas of the site, whether the areas are deemed to require a full archaeological assessment or not. The aforementioned land parcels are likely associated predominantly with grazing land, and as such are considered to be lower risk for encountering archaeology. Historical research has not indicated that any buildings or known sites are present on the areas designated below, although no pre-1900s photographs of the site have been located.

Recommendations:

Recorded Archaeology: Work in this area will necessitate the obtaining of an archaeological authority and submission of a full assessment. Although it has been implied that the buildings are to be retained, earthworks in the area have the potential to impact subsurface features associated with both domestic and farm utilisation. As such, prior to earthworks in the area surrounding the historic homestead area, a survey conducted by an archaeologist should be undertaken, and an archaeological authority applied for.

High Archaeological Potential: It is recommended that a physical survey of High Potential areas be conducted by an archaeologist, as there is the possibility that sites not visible from aerial photography or historic research could be present. Areas adjacent to the Kawarau River should be treated with high caution for development, while no mining claims for the relevant parcels have been located, the high level of activity and mining in the surrounding area means there is a high potential for features to be encountered. The land parcels adjacent to the west of the parcel should likewise be treated with high caution for development as subsurface deposits related to the farmstead, such as refuse pits, may be present. These areas should be included in any Archaeological Authority Application due to their high potential.

Moderate Archaeological Potential: There is potential for historic water races or other mining remains, and domestic adjacent deposits in the areas deemed to have moderate potential. It is recommended that the areas be included in an archaeological survey and that should any archaeological potential be identified it be included in an archaeological authority application.

Low Archaeological Potential: Although these areas are deemed low risk, there is still potential for features such as remnants of no longer standing farm associated out-buildings (stables, sheds, etc), post holes, and water race remains for example. It is recommended that a site survey be undertaken by an archaeologist prior to development occurring to this area of the site, though this will not require as extensive a survey as other section. If archaeological potential is identified, then it may be included in the archaeological authority application but is not otherwise deemed necessary.

Based on the proposed works, Origin Consultants make the following general recommendations:

- An archaeological authority under section 44 of the Heritage New Zealand Pouhere Taonga Act (2014) should be obtained from Heritage New Zealand for site F41/62 prior to any excavations proceeding that could damage this site.
- In the high and moderate risk areas, an archaeological survey of any visible features in the landscape should be undertaken. Should archaeology be found the archaeological value and potential impact to these values should be added to this assessment and included in any archaeological authority.
- In low-risk areas, an archaeological survey should still be undertaken by an archaeologist to determine on ground features prior to excavations. If features are identified that would be impacted by proposed development, they should be included in this assessment and an authority should be sought.
- As a first principle, every practical effort should be made to avoid damage to any archaeological site.
- The excavation contractor(s) must be informed of the requirements of any authority issued and briefed by the archaeologist about the site's archaeological values and the possibility that archaeological material may be uncovered during excavation works.
- All earthworks that may affect any archaeological material should be monitored by an archaeologist.
- If any archaeological features are uncovered during excavations, these should be recorded using appropriate archaeological standards by an archaeologist.
- If at any stage during site works Māori material is discovered, works must cease and manawhenua and HNZPT shall be consulted immediately about how to proceed.

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