



Figure 204. Prospecting pit within I42/156, looking south-east.



Figure 205. Sluiced area adjacent to the creek within I42/156, looking north. A water race branch terminates at the escarpment in the foreground.



Figure 206. Overview of I42/156 looking north across the site from an adjacent hillside. The undulating terrain in the foreground is interpreted as sluicing remains.



Figure 207. Possible dam site up a gully to the north of the site, looking north.



Figure 208. Harry's Hut (I42/153), looking west.

11.4 Archaeological Values

The archaeological values of the sites in the project area, or immediately adjacent sites that may be affected, are assessed in the tables below.

Table 32. Assessment of archaeological values for Camp Creek alluvial mining.

Site	Value	Assessment
I42/148, I42/149, I42/150, I42/151, I42/152, I42/155, and I42/156 (Camp Creek Alluvial Mining)	Condition	Generally, the features making up the Camp Creek sites are in fair condition. They have been impacted by erosion, stock trampling, and uncontrolled scrub growth. Assessment – Fair
	Rarity/ Uniqueness	Unprovenanced alluvial mining sites are common in New Zealand and the Waitaki District. Assessment – Low
	Contextual value	The alluvial mining sites have moderate contextual value as they are related to a suite of alluvial workings further upstream and downstream in Coal Creek. Assessment – Moderate
	Information potential	Archaeological patterns of 19 th century alluvial mining are well understood. Assessment – Low
	Amenity value	The mining features have little amenity value as they are very subtle and not accessible or visible to the public. Assessment – Low
	Cultural associations	Historic evidence indicates mining in Camp Creek by both Pākehā and Chinese. Assessment – Pākehā and Chinese

11.5 Other Heritage Values

No other heritage recognition (e.g., HNZPT listing, or District Plan scheduling) has been identified.

11.6 Effects of the Proposed Works

Any archaeological evidence within the project area will be destroyed by the proposed dam construction and flooding. While flooding may not immediately affect some archaeological features, subsequent siltation and water movement is expected to effectively destroy all archaeology within the reservoir.

Effects on values for the project component, considering the recommendations proposed below, are summarised in Table 33.

Table 33. Summary of Camp Creek Dam and Reservoir effects.

Site Number	Site Name/ Description	Site Type	Effect	Notes
I42/148, I42/149,	Camp Creek Alluvial Workings:	Mining – gold	Destroyed	Sites have moderate to low archaeological values. The same

Site Number	Site Name/ Description	Site Type	Effect	Notes
I42/150, I42/151, I42/152, I42/155, and I42/156	water race, prospecting pits, alluvial workings, and associated hut foundations			water race is recorded as part of I42/148, I42/149, I42/151, I42/155, and I42/156. The proposed archaeological investigations will realise the low information potential. The other values will be lost.
I42/153	Harry's Hut	Historic – domestic	None	
I42/154	Stone culvert	Transport/ communication	None	
I42/157	Gold workings	Mining – gold	None	Extensive area of gold workings. Dam located to avoid effects to this site.

11.7 Alternative Options

Alternative options have not been considered in this instance. The proposed reservoir volume (and associated dam size) is required to ensure sufficient waterway flow for ecological purposes and changes are not considered feasible. A Resource Consent has previously been issued for the proposed work.

11.8 Recommendations

- An Archaeological Authority is required for the proposed works. The authority should provide for the destruction of the various sites that make up the alluvial workings within the reservoir footprint (I42/148, I42/149, I42/150, I42/151, I42/152, I42/155, and I42/156). The authority should have a duration of 35 years, to align with MP4 timelines and the potential for dams to be constructed following mine closure if required to manage sufficient waterway flow.
- To provide some offset to the destruction of these sites, remedial work should be undertaken to stabilise the ruins of Harry's Hut (I42/153). This work should be undertaken by a suitably qualified stonemason.
- An archaeological management plan prepared to support this authority should specify:
 - Areas to be targeted for vegetation clearance with scrub cutters to facilitate the relocation and archaeological recording of I42/155 and I42/149 prior to works proceeding.
 - The detailed mapping of all sites/features within the project area, and targeted excavation of some features, prior to works proceeding.
 - The remedial work to stabilise Harry's Hut (I42/153) by a suitably qualified stonemason.
 - An on call-protocol for managing the discovery of any archaeological material as part of the proposed work that was not accounted for during the specified archaeological recording.

12 Murphys Ecological Enhancement Area

12.1 Proposed Works and Project Area

12.1.1 Murphys Ecological Enhancement Area

The Murphys Ecological Enhancement Area (MEEA) is intended to offset adverse effects on terrestrial and aquatic ecology that will happen as a result of the MP4 project. The establishment of this area will involve various works:

- An all-weather access track from the public roading network.
- Construction of a predator proof fence around the perimeter of the area.
- Construction of post and wire fences.
- Fence maintenance tracks and culverts at the points where the predator fence crosses major gullies.
- Construction of a site office, equipment sheds and park up area.
- Vegetation planting.
- Movement of rocks to create lizard habitat.

The exact location of these activities has not been confirmed at this stage; however, the fenceline will consist of a 9-10 km long, full-height (1.8-2.2m high) pest exclusion fence intended to enclose a minimum area of 250 ha. A buried skirt (300mm to 600mm deep) will require earthworks to install subsurface protection from burrowing pests. Lastly, the installation of 11 inflow culverts (4 small, 3 medium, 4 large) will be required for the fence to allow drainage where the fence crosses waterways.

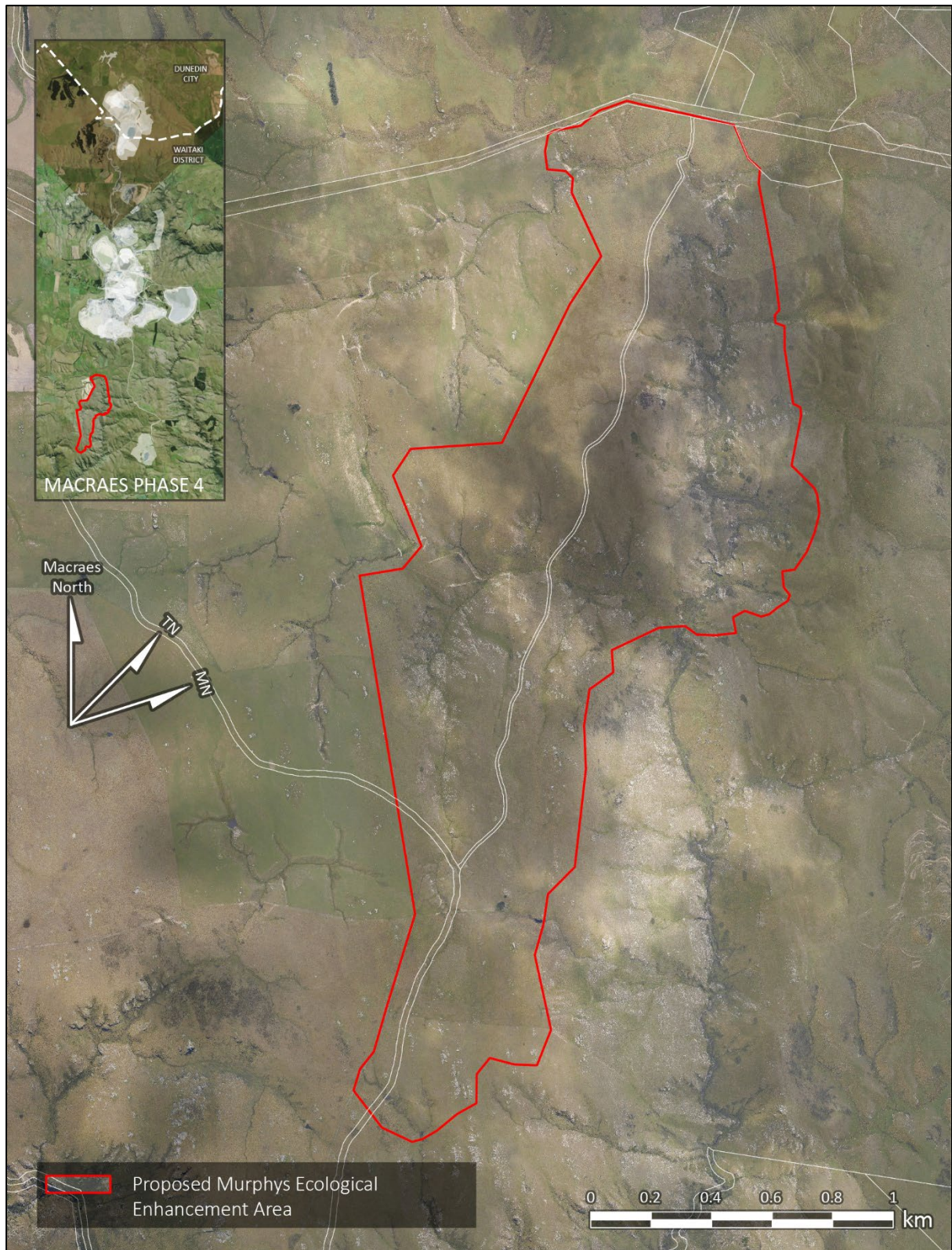


Figure 209. Location of Murphys Ecological Enhancement Area in relation to MP4 (2025 OGNZL aerial photography).

12.2 Research Results

12.2.1 Historic Record

Alluvial gold mining in Murphy's Flat and Muphy's Creek was possibly underway by 1862, and certainly by the late 1860s. Historical references to mining along the creek are imprecise, and surviving archaeological remnants

may date to anytime between the 1860s and 1930s.²²⁰ Chinese dwellings are depicted on the 1891 SO 421 survey plan in the Murphy's Flat area, to the immediate north of the MEEA (Figure 210). It is unclear how far southward into Murphy's Creek their goldmining activities extended.

Alongside goldmining, the land encompassing the proposed MEEA was leased for pastoral farming for most of the 19th and 20th centuries. Following European settlement, it was part of Run 109 and later Rund 109b.²²¹ In the 1890s the land was broken up for closer settlement and the area around the MEEA was surveyed as Section 6, Block VIII, Dunback District.²²² A bridle track is noted on this survey running through the MEEA (Figure 210). After its creation, Section 6 was leased as a "Small Grazing Run" by David Ross into the mid-20th century.²²³ The 1897 valuation of the property notes the presence of house and storeroom, built *circa* 1890-1891. By 1899 this has been revised to a house and hut with the same construction date, and "yards" and a "concrete dip" are also recorded.²²⁴

Historic aerial photographs show that the area was vacant throughout the latter half of the 20th century and into the 21st century (Figure 211).

12.2.2 Previous Archaeological Work

ArchSite records two previously recorded sites within the project area, collectively consisting of a suite of features associated with gold mining along Murphy's Creek (pits, tailings heaps, water races, and hut sites etc). These sites, recorded as I42/63 and I43/89 are enclosed within the MEEA (Figure 212 and Table 34). The sites were recorded as part of a survey by Peter Petchey in 1995 (Figure 213) and appears that they were intended to record the totality of archaeological features along Murphy's Creek within grids I42 and I43. Notably an area of alluvial workings (the stippled area) and two hut sites are recorded at the junction of Murphy's Creek and the unnamed creek running through the MEEA (Figure 213, see the area annotated '3,4'). The hut sites were described as:

- Hut 3 Possible hut site close to area of alluvial workings
- Hut 4 Similar to Hut 3. At base of schist outcrop.²²⁵

At the northern extent of the MEEA, above the upper reaches of Murphy's Creek, Petchey recorded the Murphy's Flat site complex. This is a major area of gold workings (around 1000 x 600m) consisting of sluicing, water races, tailings, and reservoirs. Based on Petchey's description of I42/63 as the workings running "for most of length of Murphy's Creek downstream of Murphy's Flat" and the two sites can be considered to be essentially contiguous.

Table 34. Details of recorded archaeological sites within or relevant to the project areas.

Site Number	Site Name	Site Type	Details	Archaeological Authorities	Site Condition
I42/40 ²²⁶	Murphy's Flat	Mining – gold	GOLDMINING	N/A	Fair

²²⁰ Petchey, *Home Reef Resource Consent Area, Macraes Gold Project: Archaeological Survey*; Peter Petchey, *Murphy's Flat: The History of the Murphy's Flat Diggings, Macraes* (Unpublished report for Macraes Mining Company, 1996).

²²¹ Archives New Zealand, R10302729.

²²² SO 421.

²²³ OT100/70, OT259/238, and OT386/118.

²²⁴ Archives New Zealand, R21088143.

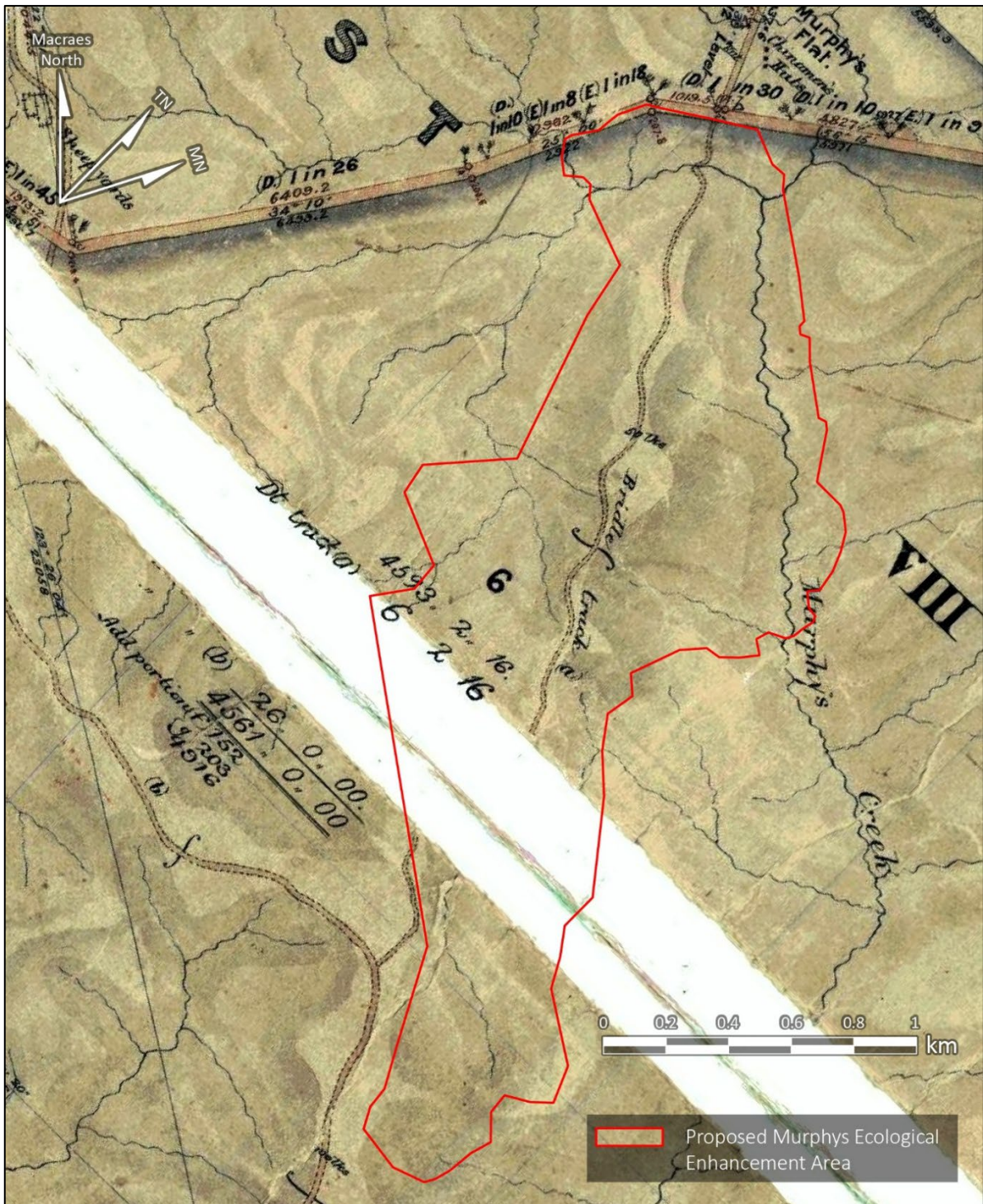
²²⁵ Petchey, *Home Reef Resource Consent Area, Macraes Gold Project: Archaeological Survey*, 14.

²²⁶ P. G. Petchey, *Murphy's Flat to Stoneburn Preliminary Archaeological Survey* (Unpublished report for Macraes Mining Company, 1995).

Site Number	Site Name	Site Type	Details	Archaeological Authorities	Site Condition
I42/63 ²²⁷	Murphy's Creek	Mining – gold	GOLDMINING	N/A	Fair
I43/89 ²²⁸	Murphy's Creek	Mining – gold	GOLDMINING	N/A	Fair

²²⁷ Petchey, *Home Reef Resource Consent Area, Macraes Gold Project: Archaeological Survey*.

²²⁸ Petchey, *Home Reef Resource Consent Area, Macraes Gold Project: Archaeological Survey*.



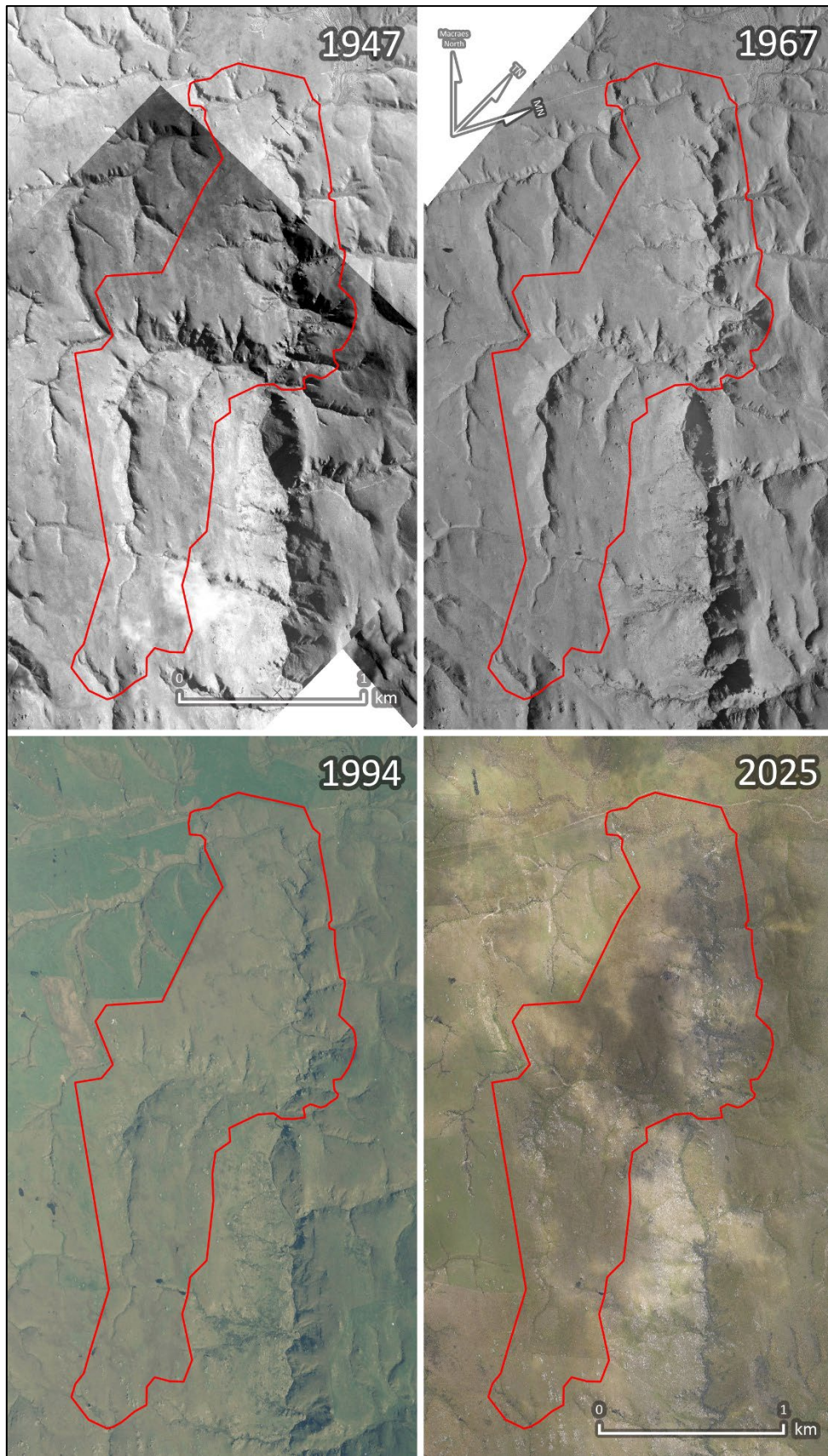


Figure 211. Historic aerial photographs showing the project area over time.²²⁹

²²⁹ Retolens and LINZ Data Service.

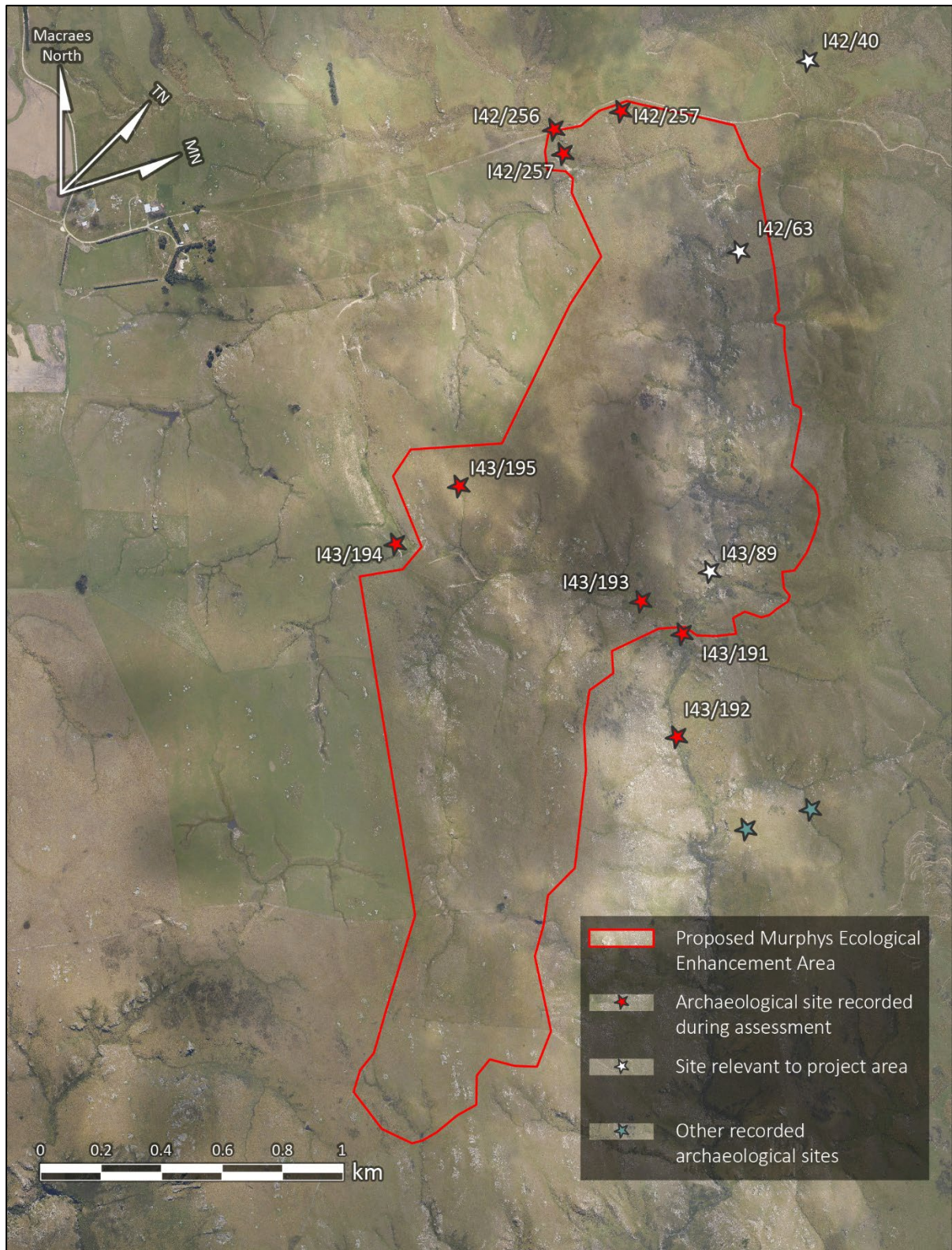


Figure 212. Locations of recorded archaeological sites in and around the project area (2025 OGNZL aerial photography).

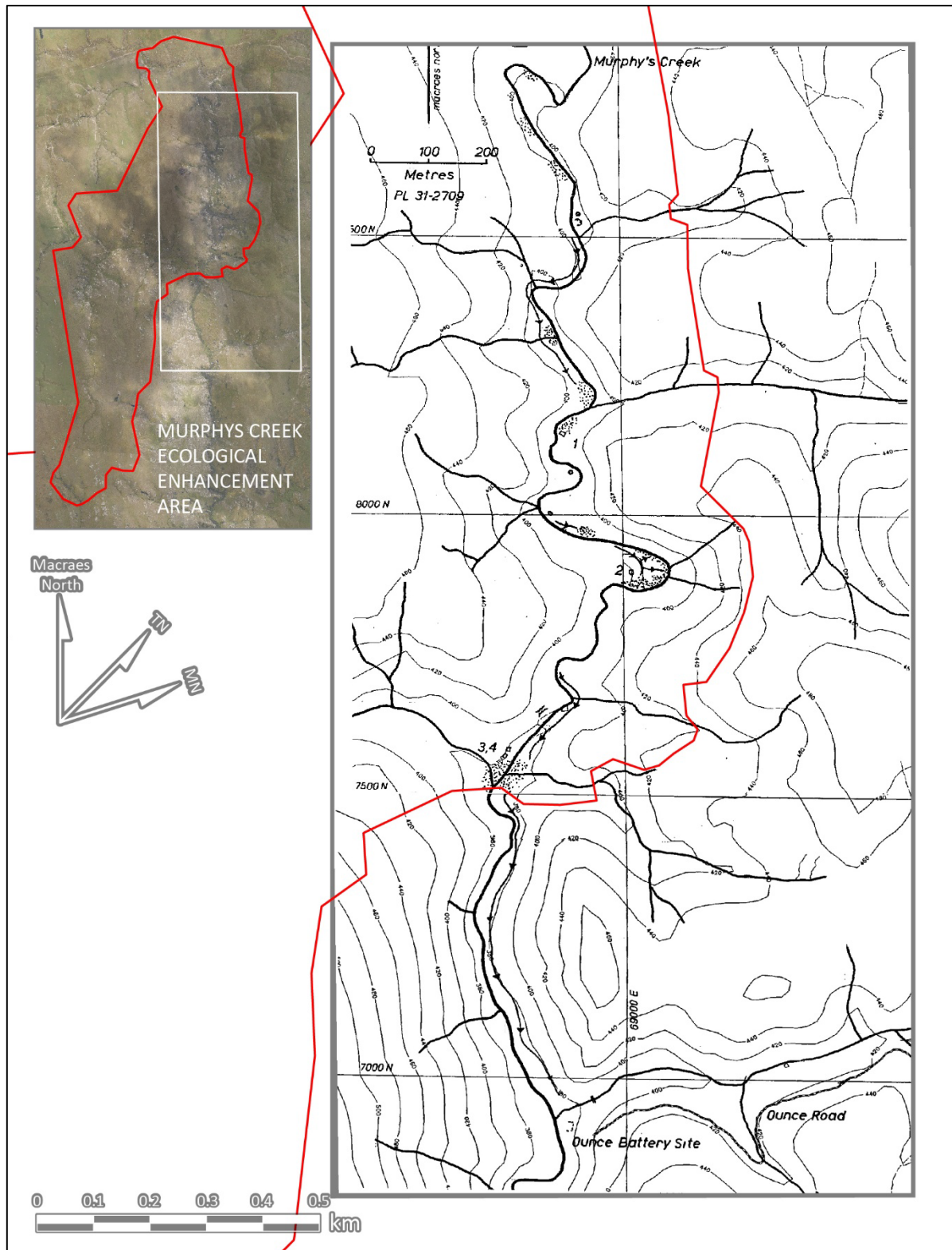


Figure 213. Map of features from Petchey's 1995 survey of Murphy's Creek.²³⁰

²³⁰ Petchey, *Home Reef Resource Consent Area, Macraes Gold Project: Archaeological Survey*, Figure 5.

12.3 Survey

A survey of the project area was undertaken by Jeremy Moyle and Renée Sadlier on 2 March 2026. An additional survey was undertaken on 30 July 2026 by Chris Jennings in response to an expansion of the MEEA boundaries. The general areas where archaeological features, or areas with archaeological potential, were identified in the desktop review and visited for survey are shown in Figure 214. The upper reaches of the creek running through the MEEA were not surveyed as, aside from a single prospecting pit, no mining features were identified downstream. This indicated that the gold source was upstream on Murphy's Creek, and based on this an on-site assessment determined that additional features would not be present on its tributaries (at least not downstream of Murphy's Flat).

Aside from the sites discussed below, it was determined that the potential for unrecorded archaeological sites in this project component is low based on the desktop review and survey.

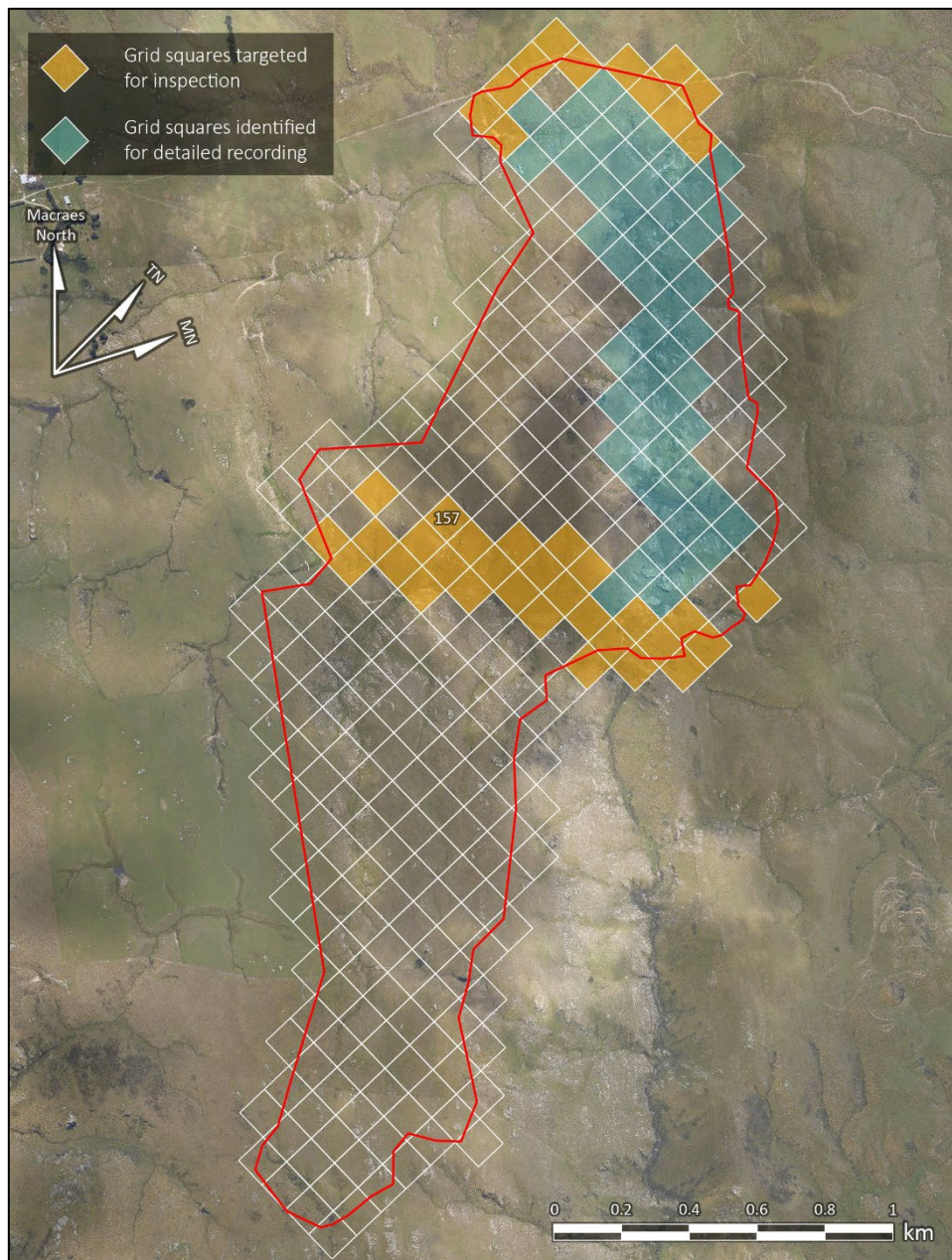


Figure 214. Areas identified for survey based on desktop review. An on-site assessment meant the red areas were not visited (2025 OGNZL aerial photography).

12.3.1 Murphy's Creek

Petchey's previous recording of sites Murphy's Creek (I42/63 and I42/89) represent an archaeological landscape, with features recorded throughout the main gully system of the creek. The northernmost gully crossing proposed for the boundary was inspected, where the fenceline borders the Murphys Flat Historic Reserve (Figure 215), and it was observed that the existing fenceline was subject to earthworks prior to its installation (Figure 216). No archaeological features were observed in the base of the gully itself, where the installation of a culvert will be required for the fenceline to cross at this location.



Figure 215. Northern area of MEEA in relation to Murphys Flat Historic Reserve. Note that MEEA boundary is indicative, and that the fenceline will not actually intrude into the DOC land parcel.



Figure 216. View of existing fenceline where MEEA predator proof fence will run taken from location marked in previous figure, facing true East. To right of fence is Murphys Flat Historic Reserve.

Further to the south, an area of alluvial workings was previously recorded as part of site I43/89 at the junction of Murphy's Creek and the unnamed creek running through the MEEA (henceforth called MEEA Creek for brevity). Several features and potential features were identified and/or inspected in this area and new sites have been recorded on ArchSite to clarify their extents relative to the wider I43/89 site (Table 35 and Figure 217).

Table 35. Surveyed items near the junction of Murphy's Creek and MEEA Creek.

Ref	Item	Site	Details
A	Prospecting pit	I43/193	Heavily overgrown pit adjacent to MEEA Creek, approximately 160m upstream of the junction with Murphy's Creek, within the MEEA (Figure 218).
B	Possible dam/tailings mounds	I43/191	Earthen embankments adjacent to Murphy's Creek (Figure 219). May be either a dam or overgrown tailings piles.
C	Tailings and sluiced ground	I43/191	Exposed tailings piles within sluicing scar adjacent to Murphy's Creek (Figure 220).
D	Prospecting pit	I43/191	Overgrown pit adjacent to sluiced area (Figure 221).
E	Timber door	I43/191	Remains of a panelled timber door (Figure 222).
F	Hut sites	I43/191	Approximate location of hut sites based on site I43/89 record (Figure 223). This location was overgrown with gorse and not accessible.
G	Ounce Battery water race	I43/192	Water race supported by vertical stone revetement (Figure 224-Figure 225). Part of a longer water race feeding the Ounce Battery (I43/90) downstream.

An area of broken ground close to the prospecting pit in the MEEA was inspected as potential workings (Figure 226). This was interpreted as natural land slumping. No other archaeological evidence was identified along MEEA Creek (Figure 227).

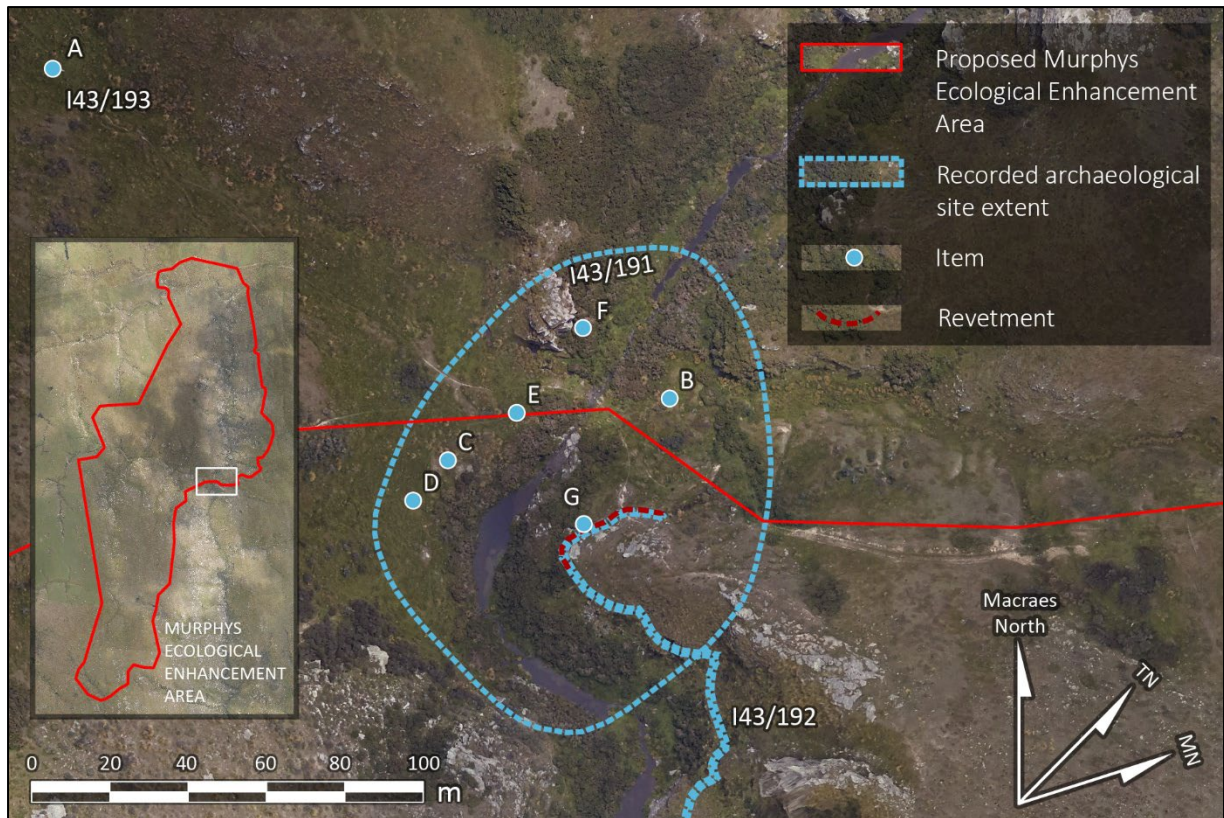


Figure 217. Surveyed items near the junction of Murphy's Creek and MEEA Creek (2025 OGNZL aerial photography).



Figure 218. Prospecting pit (A), looking west.



Figure 219. Possible dam/tailings mounds (B), looking north.



Figure 220. Tailings and slued ground (C), looking north-east. The waratah marks an ecological monitoring site.



Figure 221. Prospecting pit (D), looking north.



Figure 222. Timber door (E), looking east.



Figure 223. Location of hut sites (F), looking west. The huts sit within the area covered by gorse to the right of the rock outcrop.



Figure 224. Ounce Battery water race (G), looking south.



Figure 225. Stone revetment supporting the Ounce Battery water race (G) around the spur, looking south-east.



Figure 226. Broken ground interpreted as natural land slumping in Grid 157 (Figure 214), looking north.



Figure 227. Oblique aerial view along MEEA creek from its junction with Murphy's Creek, looking west.

12.3.2 Ross's Sheep Dip (I43/194)

A historic sheep dip was identified near the south-eastern boundary of the MEEA, on an unnamed tributary²³¹ of Murphy's Creek. This is interpreted as the circa 1897-1899 'concrete dip' recorded on the historic property valuation (see Historic Record above) that was built during the tenancy of David Ross.²³² This site consisted of a masonry dip structure, an associated dam and reservoir, and the remains of sheep yards (Table 36 and Figure 228). The features are outlined in Table 36 and the site has been recorded on ArchSite as I43/194.

Table 36. Surveyed items making up Ross's Sheep Dip (I43/194).

Ref	Item	Details
A	Dip	Primarily constructed of mortared schist stone, with a top course of bricks along most of its length. This structure was rendered with cement to create a channel that would hold water. Two drains run to the adjacent creek, one from either end of the structure. The south-east end was interpreted as the inlet as it was closest to the water source. Reels of wire have been dumped into the dip.
B	Dam	Earth dam still holding water. A stone-lined outlet feeds a race running to the dip.
C	Yards	Remnants of sheep yards adjacent to the dip. These are defined by a mixture of flat iron standards and rectangular posts. Patches of cement paving are also evident adjacent to the dip inlet and outlet. The large yard to the west of the dip is visible on aerial photographs and was not identified during the site visit.

²³¹ This is a different water course to 'MEEA Creek.'

²³² Archives New Zealand, R21088143.

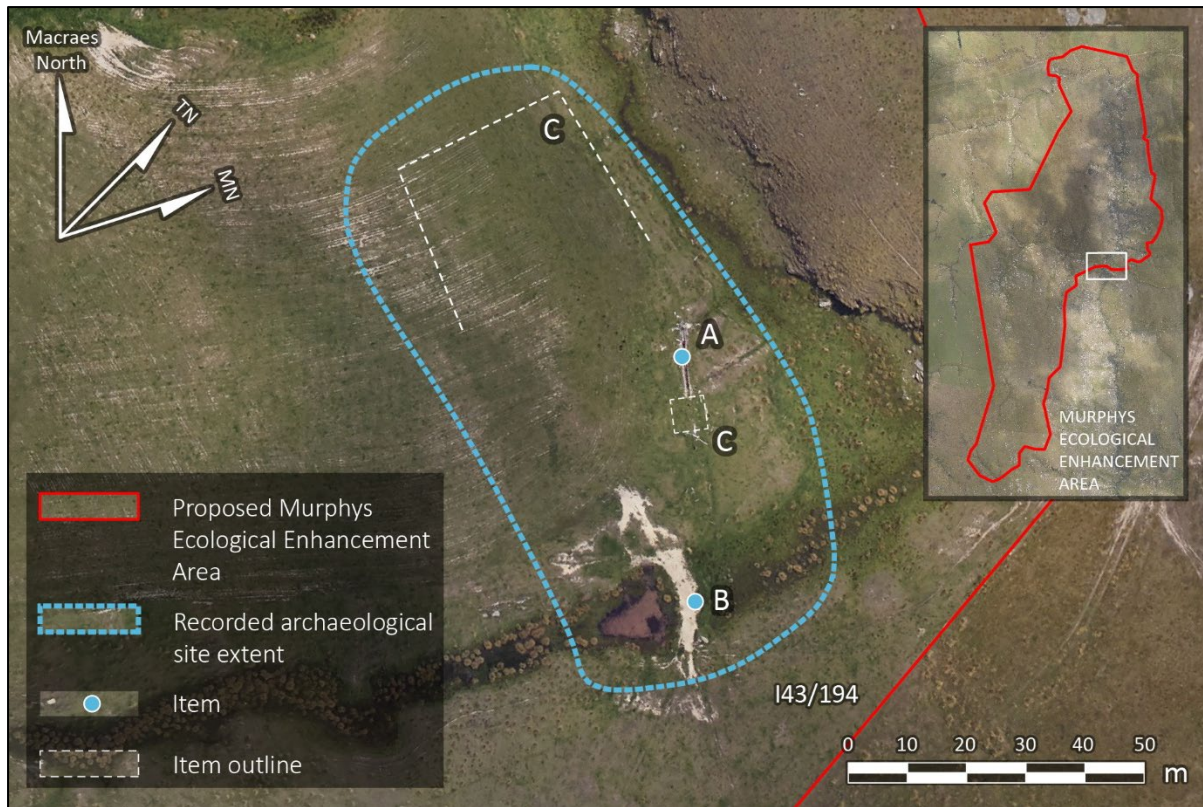


Figure 228. Surveyed items making up Ross's Sheep Dip (I43/194) (2025 OGNZL aerial photography).



Figure 229. Sheep dip, looking east.



Figure 230. Sheep dip, looking south-east. Note exposed areas of paving at the lower right of the image.



Figure 231. Detail of sheep dip showing mortared stone construction and brick top course.



Figure 232. Dam, looking south-east.



Figure 233. Stone-lined dam outlet, looking north-east.



Figure 234. Remnant fenceposts from yards at dip inlet, looking south-east.

12.3.3 Possible Prospecting Site (I43/195)

An area of disturbed ground was identified within the MEEA towards the north-west corner of its extent. This consisted of three aligned depressions in the ground. Several quartz cobbles and boulders were scattered in and around the depressions. The provenance of these features is not clear, but they are visible in the 1947 aerial photographs, and the presence of quartz cobbles and boulders suggests they may be the remains of hard-rock gold prospecting. The site has been recorded on ArchSite as I43/195.

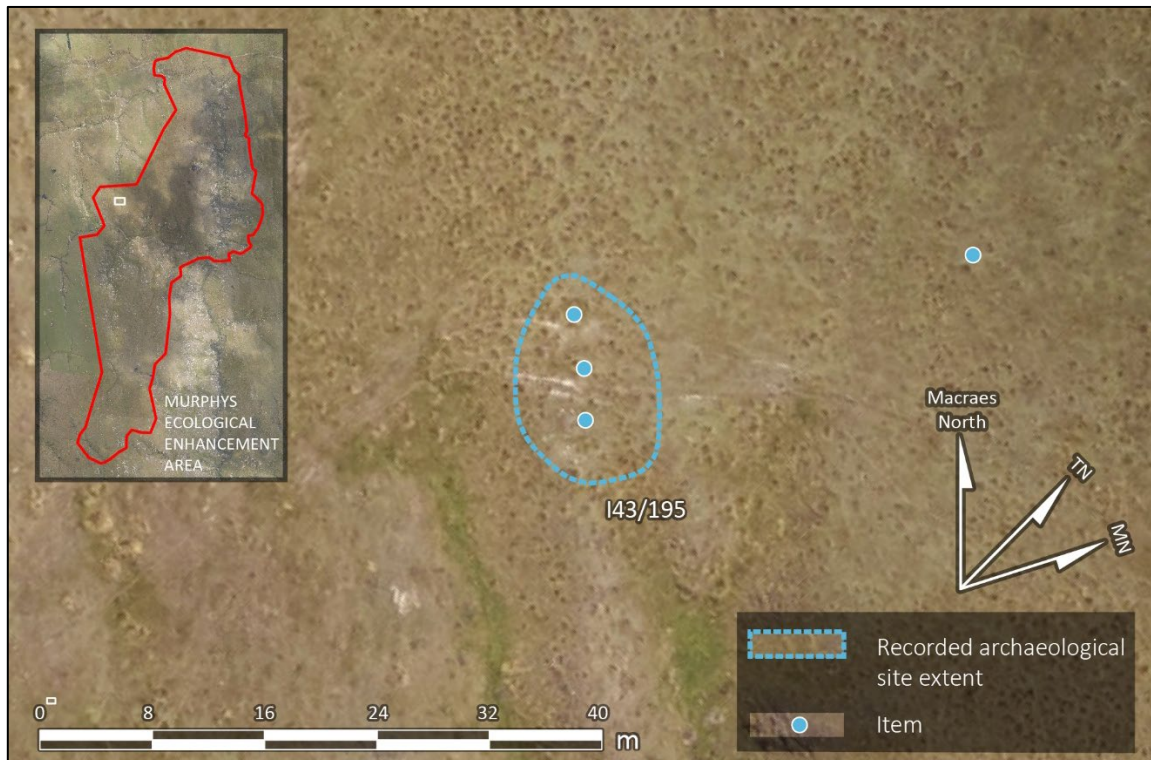


Figure 235. Possible prospecting site (I43/195) (2025 OGNZL aerial photography).



Figure 236. One of the depressions identified, looking north-east. Quartz cobbles and boulders are evident in the lower left of the image.



Figure 237. Scattered quartz cobbles and boulders in the vicinity of the depressions.

12.3.4 Stone Culvert (I42/256)

The site consists of a culvert of dry-laid schist slabs passing approximately 2-3 metres under the surface of a road embankment (Figure 238). The culvert is approximately 14.5 metres in length, with a channel 60-70 cm wide,

and a height of 140-160 cm high from the base of the streambed to the culvert crown. The channel is a vertical rectangular passage, formed by stacking large slabs across the stacked walls of the culvert.

The eastern outlet of the culvert is asymmetrical (Figure 239), with its northern side protruding further out of the road embankment. No indication of collapse was observed on its southern side. The roof of the culvert on this side was unable to be properly observed as it was obscured by scrub, which made measurement difficult.

The western intake of the culvert was capped by an exposed schist slab approximately 1.85 m long by 60 cm wide (Figure 240). The site has been recorded on ArchSite as I42/256.



Figure 238. Aerial view showing location of Stone Culvert I42/256 (2025 OGNZL aerial photograph).



Figure 239. View of culvert outlet.



Figure 240. View of Culvert intake.

12.3.5 Fence Line (I42/257)

A fenceline runs along the southern side of the farm road that passes over Culvert I42/256 for a length of approximately 507 metres (Figure 241). The fenceline is consistent with the edge of the road reserve as shown on the 1891 SO 421 and is likely to be pre-1900 in origin. The site consists of a No. 8 wire fence with 5 wires, a barbed top-wire and deteriorating wooden posts. It runs alongside a road reserve, although mostly offset from the surveyed boundary. Most of the posts are flat triangular in cross section: potentially spit rectangular posts to make supplies go further. The remaining posts consist of metal standards. Several of the posts are still in

embedded in the ground, some are detached and some remain only as fragments of some posts remain dangling from the wire (Figure 242). A few other posts appear to be opportunistically made from local wood (Figure 243). The holes for the wire are approximately 3 cm wide by 4 cm long and have most likely been enlarged by the wire rubbing against them.

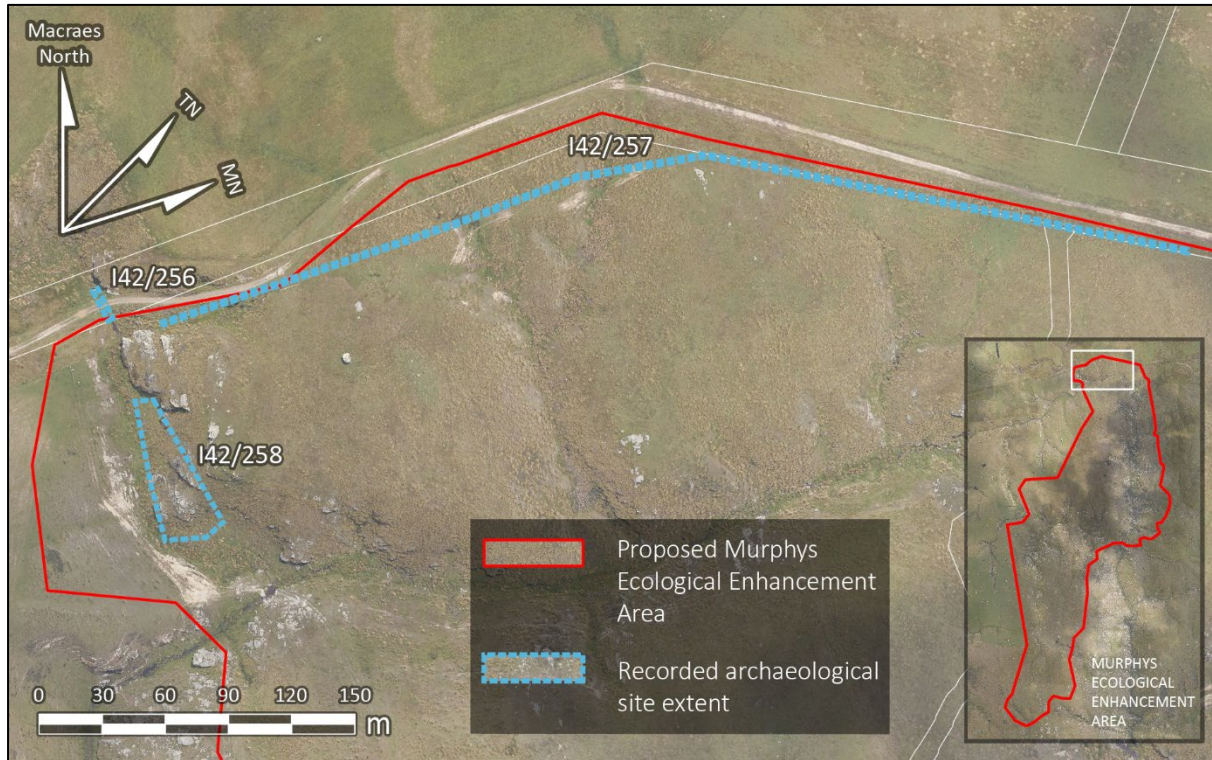


Figure 241. Aerial view showing location of Fence Line I42/257 in relation to nearby sites (2025 OGNZL aerial photograph).



Figure 242. Different states of fence posts along fence line I42/257.



Figure 243. Detached opportunistic post. Tape length = 100cm.

12.3.6 Prospecting Area (I42/258)

Inside the MEEA boundary, southeast of the stone culvert I42/256, was a small goldmining area including partially revetted benched track, a prospecting pit, and potential tailings (Figure 244). The area was heavily covered in tussock and thick grass, obscuring many of the features. The track appears to be formed in two parts. One, is a flattened path between two large schist outcrops (Figure 245); the second part of the track is a revetted section that carried on approximately 14m before it either terminated or deteriorated (Figure 246).

South of the revetted section were partially buried schist rocks that were likely indicated of tailings (Figure 247). As much of the site area was obscured by tussock, and the rocks were only partially exposed, it was difficult to determine the extent of the feature. Downslope to the south of the flattened path section was a prospecting pit, approximately 180cm long, 140cm wide, and 40m deep (Figure 248).

Although further features may be identified with clearance of the tussock grass of the site, those recorded during the inspection indicate an area representing a minor gold working or prospecting operation.

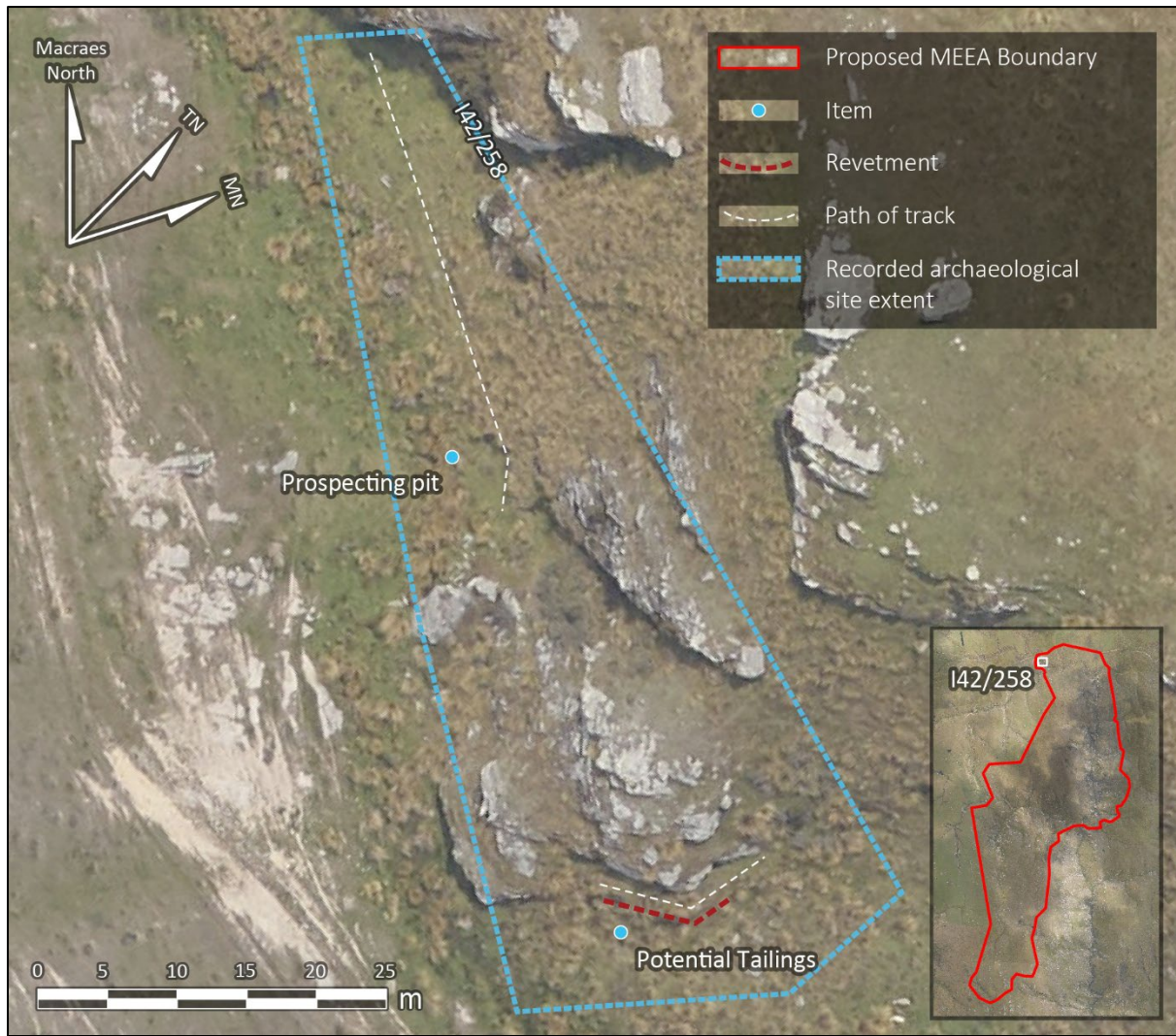


Figure 244. Aerial view showing location of prospecting area I42/258 (2025 OGNZL aerial photograph).



Figure 245. View of I42/258 track (indicated by white dashed lines) towards northeast rock outcrop.



Figure 246. Left: View of revetting on section of I42/258 south of second outcrop (facing north). Right: View to west of track above revetting.



Figure 247. View of probable tailings south of revetted section of I42/258 path. Tape extended to 100cm.



Figure 248. View of prospecting pit downslope of track, facing north.

12.4 Archaeological Values

The archaeological values of the sites that will be affected by the installation of the predator-proof fence are assessed in the tables below (Table 37- Table 39).

Table 37. Assessment of archaeological values for the mining site I43/191.

Site	Value	Assessment
I43/191	Condition	The site is overgrown, but features are easily identifiable where gorse and scrub have not taken hold. Assessment – Fair
	Rarity/Uniqueness	Alluvial mining sites are common in New Zealand and the Waitaki District. Assessment – Low
	Contextual value	The alluvial mining sites have moderate contextual value as they are related to a suite of alluvial workings further upstream and downstream in Murphys Creek. Assessment – Moderate
	Information potential	Archaeological patterns of 19 th century alluvial mining are well understood. Assessment – Low
	Amenity value	The mining features have little amenity value as they are very subtle and not accessible or visible to the public. Assessment – Low
	Cultural associations	Likely Pākehā, however Chinese miners may have also operated in the area, based on dwellings recorded at Murphy's Flat (SO 425). Assessment – Pākehā and Chinese

Table 38. Assessment of archaeological values for stone culvert I42/256.

Site	Value	Assessment
I42/256	Condition	The structure of the culvert is stable, has been well protected under the road embankment, and does not appear to have suffered significant damage. Assessment – Excellent
	Rarity/Uniqueness	Although sites recorded as having culvert features are common in the Waitaki District, its condition increases rarity value. Assessment – Moderate
	Contextual value	The culvert is likely to be contemporaneous with gold working site I42/258 and accordingly has contextual value as a representation of water control methods related to alluvial goldmining. Assessment – Moderate
	Information potential	Drystone wall construction is well understood, however investigation of the site may provide further information for addressing local challenges related early road construction and water control. Assessment – Low
	Amenity value	The mining features have little amenity value as they are very subtle and not accessible or visible to the public. Assessment – Low
	Cultural associations	Historical documentary evidence indicates mining in the area was undertaken by both Pākehā and Chinese, and this culvert may have been constructed by members from either of these communities. Assessment – Pākehā and Chinese

Table 39. Assessment of archaeological values for fenceline I42/257.

Site	Value	Assessment
I42/257	Condition	Many of the posts are completely degraded and some are only fragmentary. Only a few are embedded in the ground (i.e. in situ). Assessment – Poor
	Rarity/Uniqueness	Historic wire fences are reasonably common in rural Otago and the Waitaki District. Assessment – Low
	Contextual value	The fence follows the 1891 boundary line and is part of the historic agricultural landscape of Macraes Flat. Assessment – Moderate
	Information potential	The fence is an example of an early technology but can generally be considered to have only a limited information potential. Assessment – Low
	Amenity value	The fence has some amenity value as a picturesque element of the rural landscape. Assessment – Low

Site	Value	Assessment
	Cultural associations	The fence is associated with European agricultural occupation of the landscape. Assessment – Pākehā

12.5 Other Heritage Values

No other heritage recognition (e.g., HNZPT listing, or District Plan scheduling) has been identified.

Other heritage values are considered in a separate heritage assessment prepared for Resource Consent purposes.

12.6 Effects of the Proposed Works

The establishment of the predator-proof boundary fence and installation of culverts has the potential to modify sites within Murphy's Creek and will destroy site I42/256 and modify I42/257. As designed, the installation of the fence and necessary culvert in the gully adjacent to the Murphys Flat Historic Area will follow an existing path of disturbed ground. Accordingly, it will not affect archaeological features. The effects of the crossing through site I43/191 may modify archaeological evidence associated with the site, as the final design of the culvert crossing and the construction of the feature may affect subsurface archaeological evidence, or unrecorded features obscured by dense vegetation at the time of survey.

Effects on values for the project component, considering the recommendations proposed below, are summarised in Table 40.

Table 40. Summary of MEEA effects.

Site Number	Site Name/Description	Site Type	Effect	Notes
I43/191	Murphy's Creek Alluvial Mining	Mining – gold	Modified	Installation of the culvert and predator proof fence may avoid archaeological evidence depending on final design. Archaeological monitoring during construction should aid avoidance.
I43/192	Ounce Battery Water Race	Mining – gold	None	
I43/193	Prospecting pit	Mining – gold	None	
I43/194	Ross's Sheep Dip	Agricultural/pastoral	None	
I43/195	Prospecting pits	Mining – gold	None	
I42/256	Stacked schist culvert	Transport/communication	Destroyed	Pest control requirements mean that installation of a new culvert and the predator proof fence through this site cannot be redesigned. Recording of the historical culvert feature during

Site Number	Site Name/ Description	Site Type	Effect	Notes
				its removal will realise its information potential.
I42/257	Fenceline	Agricultural/ pastoral	Modified	Low archaeological value. Part of the fence may be destroyed as a result of the predator fence installation. It was recorded as being in poor condition and has low information potential.
I42/258	Prospecting area	Mining – gold	None	

12.7 Alternative Options

The placement of the predator fence in the location of stone culvert I42/256 presents a logistical challenge due to the topography of the area. Movement of the fence further from the culvert would provide pests with the opportunity to jump from a higher elevation into the protected area, and therefore the road embankment must be removed, and the fenceline cannot be redesigned. For the same reason, parts of the fenceline I42/257 will also need to be modified.

12.8 Recommendations

- To provide some offset to the destruction and modification of these sites detailed archaeological recording should be undertaken for site complexes in Murphy's Creek (I43/63 and I43/89) within the MEEA Boundary.
- An Archaeological Authority is required for the proposed works. The authority should provide for the modification of sites I43/194 and I42/257 and the destruction of stone culvert site I42/256.
- An archaeological management plan prepared to support this authority should specify:
 - Monitoring of deconstruction of the road embankment and removal of the culvert by an archaeologist.
 - Archaeological recording of Culvert site I42/256 to a Level III standard according to AGS 1²³³ during its deconstruction.
 - Archaeological recording of the fenceline I42/257 to a Level III standard according to AGS 1.²³⁴
 - An on call-protocol for managing the discovery of any archaeological material beyond the monitoring areas.
- To ensure contractors undertaking MEEA works avoid archaeological sites:
 - The locations of any activities that include earthworks (e.g., road/track formation or predator proof fence construction) must be assessed by an archaeologist on the ground prior to work commencing to ensure that no archaeological sites are affected.
 - Where archaeological sites are identified they must be avoided and:
 - Illustrated on any relevant construction drawings.
 - Physically isolated from access tracks and work areas with wire fencing.

²³³ Heritage New Zealand Pouhere Taonga, *Archaeological Guidelines Series No. 1: Investigation and Recording of Buildings and Standing Structures*.

²³⁴ Heritage New Zealand Pouhere Taonga, *Archaeological Guidelines Series No. 1: Investigation and Recording of Buildings and Standing Structures*.

13 Overall Summary of MP4 Effects

A summary of the effects of project works is included in Table 41. Of the 32 sites identified in and around the MP4 project areas, 12 will be destroyed, one will be modified, one will potentially be modified, and the remaining 18 sites will not be affected by the proposed works. All of the sites that will be destroyed have been assessed as having moderate to low archaeological values.

The Innes Mills Pit and Macraes Road Realignment will destroy two domestic sites (I42/214 and I42/215) and may modify buried remains relating to the Chinese Camp (I42/50) and other unidentified sites.

Expansion of the Golden Bar and Coronation Pits (and associated rock stack creation) will only affect two sites: an area of sluicings (I43/190) and a historic fenceline (I42/253) respectively.

The establishment of dams at Coal and Camp Creeks will result in the destruction or modification of nine historic gold mining sites (I42/98, I42/221, I42/148, I42/149, I42/150, I42/151, I42/152, I42/155, I42/156). Of these, seven are located in Camp Creek and five are interpreted as wholly or in part recording the same water race. In Coal Creek one site is post-1900 (I42/98) and an authority has been previously issued for the destruction of the alluvial workings (I42/221).

As part of the assessment process, project works have been modified/managed to avoid effects on five sites: Gay Tan's House (I42/49), Early Alluvial Workings (I42/64), the Golden Bar Mine and Battery (I43/86 and I43/88), and the extensive area of alluvial workings in Camp Creek (I42/157). Additional recording of post-1900 features associated with the Innes Farm (I42/215) and NZ Gold and Tungsten Battery (I42/98) is also recommended to better capture the site's archaeological context.

The Golden Bar Haul Road will have no effects on archaeological sites.

See the relevant project component sections for detailed recommendations for the management of these various sites.

On a broader scale, the sites affected form part of separate mining and small pastoral run archaeological landscapes spanning across the area between the Taieri and Shag Rivers²³⁵. The proposed works will result in little change to the current state of these landscapes. The archaeological mining landscape immediately north and south of Macraes has been significantly modified by the development of modern mining over the past 35 years, with sites like the Golden Bar Mine (I43/86), the Innes Dam Alluvial Gold Workings (I42/24), and the Coronation Mine (I42/93) having been partially or wholly destroyed. Alongside this, care has also been taken to preserve the most important elements of the mining landscape (e.g., the various sites of the Golden Point Historic Reserve, the linear tailings at the Murphy's Flat Reserve (I42/40), the early alluvial workings at I42/64, and the gravel ponds at I42/56).

The same is true for the small pastoral run landscape, though the material evidence for this is more widely scattered and has not been affected as acutely by modern mining. Specific farmsteads and their immediate surroundings have been modified or destroyed (e.g. Robinson's Farmstead (I42/159) and the Bellfield Homestead (I42/219), but the wider pastoral landscape remains intact beyond the areas mined. The removal of the fenceline (I42/253) Innes Farm (I42/215) is a loss to this landscape, but effects are negligible as their immediate environment has already been profoundly modified by mining. Overall, the proposed removal and/or preservation of sites at Coal and Camp Creek, Innes Mills, Coronation, and Golden Bar continues the existing pattern of recording and modifying of the local archaeological landscapes.

²³⁵ Hamel, *Changes in Gold Mining at Macraes.*, Hamel, *East of the Taieri River - The Archaeology of the Macraes Ecological District*.

Table 41. Summary of MP4 effects on archaeological sites.²³⁶

Site Number	Site Name/ Description	Site Type	Relevant Project Component	Effect	Notes
I42/49	Gay Tan's House	Historic – domestic	Innes Mills Pit and Macraes Road Realignment	None	Potential vibration effects will be managed to avoid any effects.
I42/50	Chinese Camp	Historic – domestic	Innes Mills Pit and Macraes Road Realignment	Potentially modified	Site has high archaeological values. Stage 2 road realignment earthworks may affect some buried archaeological evidence associated with the site. The proposed archaeological investigations may partially realise the high information potential. The other values will remain the same following the proposed works.
I42/51	Sod Structure	Historic – domestic	Innes Mills Pit and Macraes Road Realignment	None	
I42/64	Early Alluvial Workings	Mining – gold	Innes Mills Pit and Macraes Road Realignment	None	Seepage drain location has been altered to avoid site.
I42/215	Innes Farm	Historic – domestic	Innes Mills Pit and Macraes Road Realignment	Destroyed	Site has moderate to low archaeological values. Recording of post-1900 features recommended as a dimension of the site's archaeological context. The proposed archaeological investigations will realise the moderate information potential. The other archaeological values identified will be lost.
I42/214 (and	Griffin House/ Development	Historic – domestic	Innes Mills Pit and Macraes	Destroyed	Site has moderate to low archaeological values. The

²³⁶ This table is based on that used previously to support applications for the multi-site Archaeological Authorities 2020/754 and 2024/295.

Site Number	Site Name/ Description	Site Type	Relevant Project Component	Effect	Notes
potential un-recorded sites)	House and other possible rural domestic sites in the upper township		Road Realignment		proposed archaeological investigations will realise the low information potential. The other values will be lost.
I42/253	Historic Fenceline	Agricultural/pastoral	Coronation Pit and Trimbells Waste Rock Stack	Destroyed	Site has moderate to low archaeological values. The proposed archaeological investigations will realise the low information potential. The other archaeological values identified will be lost.
I43/86	Golden Bar Mine	Mining – gold	Golden Bar Pit and Waste Rock Stack	None	Waste rock stack and pit disturbance area modified to avoid site.
I43/87	Golden Bar Battery (1901)	Mining – gold	Golden Bar Pit and Waste Rock Stack	None	
I43/88	Golden Bar Battery	Mining – gold	Golden Bar Pit and Waste Rock Stack	None	Waste rock stack and pit disturbance area modified to avoid site.
I43/190	Sluicings	Mining – gold	Golden Bar Pit and Waste Rock Stack	Destroyed	Site has moderate to low archaeological values. The proposed archaeological investigations will realise the low information potential. The other archaeological values identified will be lost.
I42/33	Prospecting Pit	Mining – gold	Golden Bar Haul Road	None	
I42/41	Trig D	Transport/communication	Golden Bar Haul Road	None	
I42/97	NZ Gold and Tungsten	Mining – gold	Coal Creek Dam and Reservoir	None	
I42/98	NZ Gold and Tungsten Battery	Mining – gold	Coal Creek Dam and Reservoir	Modified	Post-1900 site with high to moderate archaeological values. Project works will destroy some of the revetted infrastructure

Site Number	Site Name/ Description	Site Type	Relevant Project Component	Effect	Notes
					associated with the battery up coal creek, but the core battery site will remain unaffected. The proposed archaeological investigations will realise the moderate information potential. The contextual value will be degraded and the other archaeological values identified will remain unchanged.
I42/221	Coal Creek Alluvial Workings	Mining – gold	Coal Creek Dam and Reservoir	Destroyed	Site has moderate to low archaeological values. An archaeological authority has previously been issued for the destruction of this site (2017/430). The proposed archaeological investigations will realise the low information potential. The other archaeological values identified will be lost.
I42/148, I42/149, I42/150, I42/151, I42/152, I42/155, and I42/156	Camp Creek Alluvial Workings: water race, prospecting pits, alluvial workings, and associated hut foundations	Mining – gold	Camp Creek Dam and Reservoir	Destroyed	Sites have moderate to low archaeological values. The same water race is recorded as part of I42/148, I42/149, I42/151, I42/155, and I42/156. The proposed archaeological investigations will realise the low information potential. The other archaeological values identified will be lost.
I42/153	Harry's Hut	Historic – domestic	Camp Creek Dam and Reservoir	None	
I42/154	Stone culvert	Transport/ communication	Camp Creek Dam and Reservoir	None	

Site Number	Site Name/ Description	Site Type	Relevant Project Component	Effect	Notes
I42/157	Gold workings	Mining – gold	Camp Creek Dam and Reservoir	None	Extensive area of gold workings. Dam located to avoid effects to this site.
I43/191	Murphy's Creek Alluvial Mining	Mining – gold	MEEA	Modified	Installation of the culvert and predator proof fence may avoid archaeological evidence depending on final design. Archaeological monitoring during construction should aid avoidance.
I43/192	Ounce Battery Water Race	Mining – gold	MEEA	None	
I43/193	Prospecting pit	Mining – gold	MEEA	None	
I43/194	Ross's Sheep Dip	Agricultural/ pastoral	MEEA	None	
I43/195	Prospecting pits	Mining – gold	MEEA	None	
I42/256	Stacked schist culvert	Transport/ communication	MEEA	Destroyed	Pest control requirements mean that installation of a new culvert and the predator proof fence through this site cannot be redesigned. Recording of the historical culvert feature during its removal will realise its information potential.
I42/257	Fenceline	Agricultural/ pastoral	MEEA	Modified	Low archaeological value. Part of the fence may be destroyed as a result of the predator fence installation. It was recorded as being in poor condition and has low information potential.
I42/258	Prospecting area	Mining – gold	MEEA	None	

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15 Appendix A1 – Innes Mills Pit and Macraes Road Realignment Proposed Archaeological Authority Conditions

Considering the recommendations in the relevant section above, and the management plan included as Appendix A2, the following conditions are proposed for an archaeological authority for the Innes Mills Pit and Macraes Road Realignment project component:

1. Prior to the start of any on-site archaeological work, the authority holder must ensure that Heritage New Zealand Pouhere Taonga is advised of the date when work will begin.
2. The authority holder must ensure that Heritage New Zealand Pouhere Taonga is advised of the completion of the on-site archaeological work, within two working days of completion.
3. The authority holder must ensure that all contractors carrying out works that will or may potentially modify archaeological sites are briefed by the s45 approved person (who may appoint a person to carry out the briefing on their behalf), prior to any works commencing, on the archaeological work required by the conditions of this authority.
4. The authority must be exercised in accordance with the management plan attached to the authority application. Any changes to the plan require the prior written agreement of Heritage New Zealand Pouhere Taonga.
5. The authority holder will ensure that sites and areas are preserved as per the management plan.
6. Appropriate marking of sites and site features (including any buffer margins), with high visibility materials, must be undertaken in consultation with the s45 approved person prior to works commencing. Marking methods must be of sufficient durability and visibility to ensure they are effective through the period of any operational cycle (the sequence of physical ground disturbing activities that can reasonably be expected to occur in and around the sites within the term over which the authority will be current).
7. Any archaeological evidence encountered during project works must be investigated, recorded and analysed in accordance with current archaeological practice.
8. Prior to any earthworks, an archaeological investigation must be undertaken, in accordance with section 52(2) of the Act, based on the management plan attached to the application. The aims of the investigation shall be to investigate, research and analyse archaeological stratigraphy, features and remains in accordance with current archaeological practice to gather information about the historical and cultural heritage of New Zealand.
9. The Innes Farm (I42/215) buildings must be investigated, recorded and analysed prior to demolition to document and recover information about construction, alteration and use through time. This is to be undertaken to the minimum standards specified for each building in the archaeological management plan, with reference the levels defined in Guidelines for the Investigation and Recording of Buildings and Standing Structures (AGS1 2018).
10. If any kōiwi (human remains) are encountered, all work should cease within 20 metres of the discovery. Heritage New Zealand Pouhere Taonga, New Zealand Police, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou, and Te Rūnanga o Moeraki must be advised immediately in accordance with Guidelines for Kōiwi Tangata/Human Remains (AGS8 2010) and no further work in the area may take place until future actions have been agreed by all parties.
11. The authority holder must ensure that if any possible taonga, or sites of Māori origin are encountered, all work should cease within 20 metres of the discovery. Heritage New Zealand Pouhere Taonga must be advised immediately and no further work in the area may take place until they have responded.
12. Annually from the date of issue of this authority, the authority holder must submit to Heritage New Zealand Pouhere Taonga a written report containing a summary of the progress of the project.
13. Within 20 working days of the completion of the on-site archaeological work associated with this authority, the authority holder shall ensure that an interim report completed to the satisfaction of

Heritage New Zealand Pouhere Taonga and following the Archaeological Report Guideline (AGS12 2023) is submitted to Heritage New Zealand Pouhere Taonga for inclusion in the Heritage New Zealand Pouhere Taonga Archaeological Reports Digital Library.

14. Within 12 months of the completion of the on-site archaeological work, the authority holder shall ensure that a final report, completed to the satisfaction of Heritage New Zealand Pouhere Taonga and following the Archaeological Report Guideline (AGS12 2023), is submitted to Heritage New Zealand Pouhere Taonga for inclusion in the Heritage New Zealand Pouhere Taonga Archaeological Reports Digital Library. Digital copies of the final report must also be sent to: the NZAA Central Filekeeper, NZAA Central Filekeeper, Waitaki Museum and Archive, Waitaki District Council, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou, and Te Rūnanga o Moeraki.

16 Appendix A2 – Innes Mills Pit and Macraes Road Realignment Archaeological Management Plan

17 Appendix B1 – Coronation Pit and Trimbells Waste Rock Stack Proposed Archaeological Authority Conditions

Considering the recommendations in the relevant section above, and the management plan included as Appendix B2, the following conditions are proposed for an archaeological authority for the Coronation Pit and Trimbells Waste Rock Stack project component:

1. Prior to the start of any on-site archaeological work, the authority holder must ensure that Heritage New Zealand Pouhere Taonga is advised of the date when work will begin.
2. The authority holder must ensure that Heritage New Zealand Pouhere Taonga is advised of the completion of the on-site archaeological work, within two working days of completion.
3. The authority holder must ensure that all contractors carrying out works that will or may potentially modify archaeological sites are briefed by the s45 approved person (who may appoint a person to carry out the briefing on their behalf), prior to any works commencing, on the archaeological work required by the conditions of this authority.
4. The authority must be exercised in accordance with the management plan attached to the authority application. Any changes to the plan require the prior written agreement of Heritage New Zealand Pouhere Taonga.
5. Any archaeological evidence encountered during project works must be investigated, recorded and analysed in accordance with current archaeological practice.
6. The fenceline (I42/253) must be investigated, recorded and analysed prior to demolition to document and recover information about construction, alteration and use through time. This is to be undertaken to a minimum standard of Level III recording as defined in Guidelines for the Investigation and Recording of Buildings and Standing Structures (AGS1 2018).
7. If any kōiwi (human remains) are encountered, all work should cease within 20 metres of the discovery. Heritage New Zealand Pouhere Taonga, New Zealand Police, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou, and Te Rūnanga o Moeraki must be advised immediately in accordance with Guidelines for Kōiwi Tangata/Human Remains (AGS8 2010) and no further work in the area may take place until future actions have been agreed by all parties.
8. The authority holder must ensure that if any possible taonga, or sites of Māori origin are encountered, all work should cease within 20 metres of the discovery. Heritage New Zealand Pouhere Taonga must be advised immediately and no further work in the area may take place until they have responded.
9. Annually from the date of issue of this authority, the authority holder must submit to Heritage New Zealand Pouhere Taonga a written report containing a summary of the progress of the project.
10. Within 20 working days of the completion of the on-site archaeological work associated with this authority, the NZAA Site Record for I42/253 must be updated in ArchSite based on current archaeological practice.
11. If any archaeological remains other than I42/253 require any archaeological investigation, recording and analysis, then within 12 months the authority holder shall ensure that a final report, completed to the satisfaction of Heritage New Zealand Pouhere Taonga and following the Archaeological Report Guideline (AGS12 2023), is submitted to Heritage New Zealand Pouhere Taonga for inclusion in the Heritage New Zealand Pouhere Taonga Archaeological Reports Digital Library. Digital copies of the final report must also be sent to: the NZAA Central Filekeeper, Waitaki Museum and Archive, Waitaki District Council, Dunedin City Council, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou, and Te Rūnanga o Moeraki.

18 Appendix B2 – Coronation Pit and Trimbells Waste Rock Stack Archaeological Management Plan

19 Appendix C1 – Golden Bar Pit and Waste Rock Stack Proposed Archaeological Authority Conditions

Considering the recommendations in the relevant section above, and the management plan included as Appendix A2, the following conditions are proposed for an archaeological authority for the Golden Bar Pit and Waste Rock Stack project component:

1. Prior to the start of any on-site archaeological work, the authority holder must ensure that Heritage New Zealand Pouhere Taonga is advised of the date when work will begin.
2. The authority holder must ensure that Heritage New Zealand Pouhere Taonga is advised of the completion of the on-site archaeological work, within two working days of completion.
3. The authority holder must ensure that all contractors carrying out works that will or may potentially modify archaeological sites are briefed by the s45 approved person (who may appoint a person to carry out the briefing on their behalf), prior to any works commencing, on the archaeological work required by the conditions of this authority.
4. The authority must be exercised in accordance with the management plan attached to the authority application. Any changes to the plan require the prior written agreement of Heritage New Zealand Pouhere Taonga.
5. The authority holder will ensure that areas are preserved as per the management plan.
6. Appropriate marking of sites and site features (including any buffer margins), with high visibility materials, must be undertaken in consultation with the s45 approved person prior to works commencing. Marking methods must be of sufficient durability and visibility to ensure they are effective through the period of any operational cycle (the sequence of physical ground disturbing activities that can reasonably be expected to occur in and around the sites within the term over which the authority will be current).
7. Any archaeological evidence encountered during project works must be investigated, recorded and analysed in accordance with current archaeological practice.
8. If any kōiwi (human remains) are encountered, all work should cease within 20 metres of the discovery. Heritage New Zealand Pouhere Taonga, New Zealand Police, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou, and Te Rūnanga o Moeraki must be advised immediately in accordance with Guidelines for Kōiwi Tangata/Human Remains (AGS8 2010) and no further work in the area may take place until future actions have been agreed by all parties.
9. The authority holder must ensure that if any possible taonga, or sites of Māori origin are encountered, all work should cease within 20 metres of the discovery. Heritage New Zealand Pouhere Taonga must be advised immediately and no further work in the area may take place until they have responded.
10. Annually from the date of issue of this authority, the authority holder must submit to Heritage New Zealand Pouhere Taonga a written report containing a summary of the progress of the project.
11. Within 20 working days of the completion of the on-site archaeological work associated with this authority, the NZAA Site Records for I43/190 and I43/86 must be updated in ArchSite based on current archaeological practice.
12. If any archaeological remains other than I43/190 and I43/86 require any archaeological investigation, recording and analysis, then within 12 months the authority holder shall ensure that a final report, completed to the satisfaction of Heritage New Zealand Pouhere Taonga and following the Archaeological Report Guideline (AGS12 2023), is submitted to Heritage New Zealand Pouhere Taonga for inclusion in the Heritage New Zealand Pouhere Taonga Archaeological Reports Digital Library. Digital copies of the final report must also be sent to: the NZAA Central Filekeeper, Waitaki Museum and Archive, Waitaki District Council, Dunedin City Council, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou, and Te Rūnanga o Moeraki.

20 Appendix C2 – Golden Bar Pit and Waste Rock Stack Archaeological Management Plan

21 Appendix D1 – Coal Creek Dam and Reservoir Proposed Archaeological Authority Conditions

Considering the recommendations in the relevant section above, and the management plan included as Appendix D2, the following conditions are proposed for an archaeological authority for Coal Creek Dam and Reservoir project component:

1. Prior to the start of any on-site archaeological work, the authority holder must ensure that Heritage New Zealand Pouhere Taonga is advised of the date when work will begin.
2. The authority holder must ensure that Heritage New Zealand Pouhere Taonga is advised of the completion of the on-site archaeological work, within two working days of completion.
3. The authority holder must ensure that all contractors carrying out works that will or may potentially modify archaeological sites are briefed by the s45 approved person (who may appoint a person to carry out the briefing on their behalf), prior to any works commencing, on the archaeological work required by the conditions of this authority.
4. The authority must be exercised in accordance with the management plan attached to the authority application. Any changes to the plan require the prior written agreement of Heritage New Zealand Pouhere Taonga.
5. The authority holder will ensure that sites are preserved as per the management plan.
6. Appropriate marking of sites and site features (including any buffer margins), with high visibility materials, must be undertaken in consultation with the s45 approved person prior to works commencing. Marking methods must be of sufficient durability and visibility to ensure they are effective through the period of any operational cycle (the sequence of physical ground disturbing activities that can reasonably be expected to occur in and around the sites within the term over which the authority will be current).
7. Any archaeological evidence encountered during project works must be investigated, recorded and analysed in accordance with current archaeological practice.
8. If any kōiwi (human remains) are encountered, all work should cease within 20 metres of the discovery. Heritage New Zealand Pouhere Taonga, New Zealand Police, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou, and Te Rūnanga o Moeraki must be advised immediately in accordance with Guidelines for Kōiwi Tangata/Human Remains (AGS8 2010) and no further work in the area may take place until future actions have been agreed by all parties.
9. The authority holder must ensure that if any possible taonga, or sites of Māori origin are encountered, all work should cease within 20 metres of the discovery. Heritage New Zealand Pouhere Taonga must be advised immediately and no further work in the area may take place until they have responded.
10. Annually from the date of issue of this authority, the authority holder must submit to Heritage New Zealand Pouhere Taonga a written report containing a summary of the progress of the project.
11. Within 20 working days of the completion of the on-site archaeological work associated with this authority, the authority holder shall ensure that an interim report completed to the satisfaction of Heritage New Zealand Pouhere Taonga and following the Archaeological Report Guideline (AGS12 2023) is submitted to Heritage New Zealand Pouhere Taonga for inclusion in the Heritage New Zealand Pouhere Taonga Archaeological Reports Digital Library.
12. Within 12 months of the completion of the on-site archaeological work, the authority holder shall ensure that a final report, completed to the satisfaction of Heritage New Zealand Pouhere Taonga and following the Archaeological Report Guideline (AGS12 2023), is submitted to Heritage New Zealand Pouhere Taonga for inclusion in the Heritage New Zealand Pouhere Taonga Archaeological Reports Digital Library. Digital copies of the final report must also be sent to: the NZAA Central Filekeeper, NZAA Central Filekeeper, Waitaki Museum and Archive, Waitaki District Council, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou, and Te Rūnanga o Moeraki.

22 Appendix D2 – Coal Creek Dam and Reservoir Archaeological Management Plan

23 Appendix E1 – Camp Creek Dam and Reservoir Proposed Archaeological Authority Conditions

Considering the recommendations in the relevant section above, and the management plan included as Appendix E2, the following conditions are proposed for an archaeological authority for Camp Creek Dam and Reservoir project component:

1. Prior to the start of any on-site archaeological work, the authority holder must ensure that Heritage New Zealand Pouhere Taonga is advised of the date when work will begin.
2. The authority holder must ensure that Heritage New Zealand Pouhere Taonga is advised of the completion of the on-site archaeological work, within two working days of completion.
3. The authority holder must ensure that all contractors carrying out works that will or may potentially modify archaeological sites are briefed by the s45 approved person (who may appoint a person to carry out the briefing on their behalf), prior to any works commencing, on the archaeological work required by the conditions of this authority.
4. The authority must be exercised in accordance with the management plan attached to the authority application. Any changes to the plan require the prior written agreement of Heritage New Zealand Pouhere Taonga.
5. Appropriate marking of sites and site features (including any buffer margins), with high visibility materials, must be undertaken in consultation with the s45 approved person prior to works commencing. Marking methods must be of sufficient durability and visibility to ensure they are effective through the period of any operational cycle (the sequence of physical ground disturbing activities that can reasonably be expected to occur in and around the sites within the term over which the authority will be current).
6. Any archaeological evidence encountered during project works must be investigated, recorded and analysed in accordance with current archaeological practice.
7. If any kōiwi (human remains) are encountered, all work should cease within 20 metres of the discovery. Heritage New Zealand Pouhere Taonga, New Zealand Police, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou, and Te Rūnanga o Moeraki must be advised immediately in accordance with Guidelines for Kōiwi Tangata/Human Remains (AGS8 2010) and no further work in the area may take place until future actions have been agreed by all parties.
8. The authority holder must ensure that if any possible taonga, or sites of Māori origin are encountered, all work should cease within 20 metres of the discovery. Heritage New Zealand Pouhere Taonga must be advised immediately and no further work in the area may take place until they have responded.
9. Annually from the date of issue of this authority, the authority holder must submit to Heritage New Zealand Pouhere Taonga a written report containing a summary of the progress of the project.
10. Within 20 working days of the completion of the on-site archaeological work associated with this authority, the authority holder shall ensure that an interim report completed to the satisfaction of Heritage New Zealand Pouhere Taonga and following the Archaeological Report Guideline (AGS12 2023) is submitted to Heritage New Zealand Pouhere Taonga for inclusion in the Heritage New Zealand Pouhere Taonga Archaeological Reports Digital Library.
11. Within 12 months of the completion of the on-site archaeological work, the authority holder shall ensure that a final report, completed to the satisfaction of Heritage New Zealand Pouhere Taonga and following the Archaeological Report Guideline (AGS12 2023), is submitted to Heritage New Zealand Pouhere Taonga for inclusion in the Heritage New Zealand Pouhere Taonga Archaeological Reports Digital Library. Digital copies of the final report must also be sent to: the NZAA Central Filekeeper, NZAA Central Filekeeper, Waitaki Museum and Archive, Waitaki District Council, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou, and Te Rūnanga o Moeraki.

24 Appendix E2 – Camp Creek Dam and Reservoir Archaeological Management Plan

25 Appendix F1 – MEEA Proposed Archaeological Authority Conditions

Considering the recommendations in the relevant section above, and the management plan included as Appendix F2, the following conditions are proposed for an archaeological authority for the MEEA:

1. Prior to the start of any on-site archaeological work, the authority holder must ensure that Heritage New Zealand Pouhere Taonga is advised of the date when work will begin.
2. The authority holder must ensure that Heritage New Zealand Pouhere Taonga is advised of the completion of the on-site archaeological work, within two working days of completion.
3. The authority holder must ensure that all contractors carrying out works that will or may potentially modify archaeological sites are briefed by the s45 approved person (who may appoint a person to carry out the briefing on their behalf), prior to any works commencing, on the archaeological work required by the conditions of this authority.
4. The authority must be exercised in accordance with the management plan attached to the authority application. Any changes to the plan require the prior written agreement of Heritage New Zealand Pouhere Taonga.
5. Appropriate marking of sites and site features (including any buffer margins), with high visibility materials, must be undertaken in consultation with the s45 approved person prior to works commencing. Marking methods must be of sufficient durability and visibility to ensure they are effective through the period of any operational cycle (the sequence of physical ground disturbing activities that can reasonably be expected to occur in and around the sites within the term over which the authority will be current).
6. Prior to any earthworks, an archaeological investigation must be undertaken for Murphys Creek sites I42/63, I43/89 and I43/191 within the MEEA boundary in accordance with section 52(2) of the Act, based on the management plan attached to the application. The aims of the investigation shall be to investigate, research and analyse archaeological features and remains in accordance with current archaeological practice to gather information about the historical and cultural heritage of New Zealand.
7. Stone Culvert site (I42/256) and Fence Line (I42/257) must be investigated, recorded and analysed prior to demolition to document and recover information about their construction. This is to be undertaken to a minimum standard of Level III recording as defined in Guidelines for the Investigation and Recording of Buildings and Standing Structures (AGS1 2018).
8. Any archaeological evidence encountered during project works must be investigated, recorded and analysed in accordance with current archaeological practice.
9. If any kōiwi (human remains) are encountered, all work should cease within 20 metres of the discovery. Heritage New Zealand Pouhere Taonga, New Zealand Police, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou, and Te Rūnanga o Moeraki must be advised immediately in accordance with Guidelines for Kōiwi Tangata/Human Remains (AGS8 2010) and no further work in the area may take place until future actions have been agreed by all parties.
10. The authority holder must ensure that if any possible taonga, or sites of Māori origin are encountered, all work should cease within 20 metres of the discovery. Heritage New Zealand Pouhere Taonga must be advised immediately and no further work in the area may take place until they have responded.
11. Annually from the date of issue of this authority, the authority holder must submit to Heritage New Zealand Pouhere Taonga a written report containing a summary of the progress of the project.
12. Within 20 working days of the completion of the on-site archaeological work associated with this authority, the authority holder shall ensure that an interim report completed to the satisfaction of Heritage New Zealand Pouhere Taonga and following the Archaeological Report Guideline (AGS12 2023) is submitted to Heritage New Zealand Pouhere Taonga for inclusion in the Heritage New Zealand Pouhere Taonga Archaeological Reports Digital Library.

13. Within 12 months of the completion of the on-site archaeological work, the authority holder shall ensure that a final report, completed to the satisfaction of Heritage New Zealand Pouhere Taonga and following the Archaeological Report Guideline (AGS12 2023), is submitted to Heritage New Zealand Pouhere Taonga for inclusion in the Heritage New Zealand Pouhere Taonga Archaeological Reports Digital Library. Digital copies of the final report must also be sent to: the NZAA Central Filekeeper, NZAA Central Filekeeper, Waitaki Museum and Archive, Waitaki District Council, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou, and Te Rūnanga o Moeraki.

26 Appendix F2 – MEEA Archaeological Management Plan

27 Appendix G – S45 Archaeologist Details