

# PROPOSED KAIKŌURA BUSINESS PARK AND KOWHAI DOWNS SUBDIVISION AT 69 INLAND KAIKŌURA ROAD, PEKETĀ, KAIKŌURA DISTRICT: AN ARCHAEOLOGICAL ASSESSMENT

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UNPUBLISHED REPORT PREPARED FOR RICHARD WATHERSTON AND KAIKŌURA BUSINESS PARK 2021 LTD

## 1.0 INTRODUCTION

Richard Watherston and Kaikōura Business Park 2021 Ltd are in the process of seeking all necessary consents to redevelop approximately 61.75 hectares of rural farmland at 69 Inland Road, Peketā, Kaikōura District, into a business park and lifestyle block subdivision (Figure 1 and Figure 2).

Richard Watherston and Kaikōura Business Park 2021 Ltd would like to know if Stage 1 earthworks (forming access roads, constructing stormwater soakpits, and installing services to new lot boundaries) could impact pre-1900 subsurface archaeological deposits (protected under the provisions of the *Heritage New Zealand Pouhere Taonga Act 2014*), and whether a General Archaeological Authority from Heritage New Zealand Pouhere Taonga should first be obtained before those Stage 1 earthworks can be carried out.

The Legal Descriptions of the relevant land parcels being assessed are Lot 2 DP527436 (50.73 ha) and Lot 2 DP 501321 (11.02 ha). Land development company Baseline Group Ltd designed the layout of the subdivision. Baseline's preliminary plans (subject to consent) are included in this report.

This assessment is based on a review of survey maps and plans sourced from Grip<sup>1</sup> and Mapspast<sup>2</sup>, historic aerial imagery from Canterbury Maps<sup>3</sup> and Retrolens<sup>4</sup>, a review of site records held on ArchSite<sup>5</sup> (the online database of recorded archaeological sites operated by the New Zealand Archaeological Association), and a review of previous archaeological investigations undertaken in the vicinity. Hamish Williams (Home Guard Heritage Archaeology) and Dr Angel Trendafilov (Angel's Archaeology) visited the site on 14 June 2021 to discuss the scope of the proposed works with Richard Watherston. Dr Angel Trendafilov revisited the site on 25 June 2021 to undertake a systematic programme of test pitting to better understand the archaeological potential of the Stage 1 works locations. The results of the test pit investigations are detailed in section 6.1 of this report.

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<sup>1</sup> Grip.co.nz

<sup>2</sup> Mapspast.org.nz

<sup>3</sup> Canterburymaps.govt.nz

<sup>4</sup> Retrolens.co.nz

<sup>5</sup> ArchSite.org.nz



Figure 1. Satellite aerial imagery of the relevant section of the southern Kaikōura coast between the Kahutara River (at far left) and Kaikōura Peninsula (at far right). The subject area that is being assessed is marked in red. Image: after [Canterburymaps.govt.nz](http://Canterburymaps.govt.nz).



Figure 2. Annotated Satellite aerial imagery of the relevant section of the southern Kaikōura coast, showing outlined in red the two land parcels that are being assessed. Image: after [Canterburymaps.govt.nz](http://Canterburymaps.govt.nz)

## 1.1 OWNERSHIP, DISCLAIMER, AND LIMITATIONS OF THIS REPORT

This report has been prepared for Richard Watherston and Kaikōura Business Park 2021 Ltd in relation to a specific programme of earthworks associated with the proposed subdivision of Lot 2 DP 527436 and Lot 2 DP 501321. This report and the information contained herein are subject to copyright. Ownership of the primary materials created in the course of the research remains the property of Home Guard Heritage Archaeology. This report remains the property of Richard Watherston, Kaikōura Business Park 2021 Ltd, and Home Guard Heritage Archaeology.

The professional advice and opinions contained in this report are those of the author, and do not represent the opinions and policies of any third party. The professional advice and opinions contained in this report do not constitute legal advice.

This report presents an archaeological assessment of the proposed subdivision of Lot 2 DP 527436 and Lot 2 DP 501321, but it is only that and nothing more. This report does not in any way constitute a statement of tangata whenua Māori values. Te Rūnanga o Kaikōura is the modern-day representative of the Ngāi Tahu hapū Ngāti Kuri, who are best placed to comment on the cultural values of the site. Ngāti Kuri are the tangata whenua who have manawhenua and manamoana over the Kaikōura rohe/area. Manawhenua and manamoana are determined by whakapapa and confer customary authority. The manawhenua and manamoana status of Ngāti Kuri comes from continuous land use and occupation of the Kaikōura area. Te Rūnanga o Kaikōura are a Papatipu Rūnanga of Ngāi Tahu Whānui, recognised in the First Schedule of the Te Rūnanga o Ngāi Tahu Act 1996. Te Rūnanga o Ngāi Tahu represents the tribal collective of Ngāi Tahu Whānui and was established by the Te Rūnanga o Ngāi Tahu Act 1996 to give legal identity to the tribe (Te Rūnanga o Ngāi Tahu, 2021a).

## 2.0 PHYSICAL ENVIRONMENT

The assessment area is relatively flat farm land mostly still under pasture that has seen most recent use for beef and dairy farming. To the north of the assessment area is the Main North Railway line (constructed in the 1940s), and to the south is State Highway 1 (formed in the late 1890s as the Kaikōura – Cheviot Road). To the east is the Kaikōura Inland Road and the Kowhai River, and to the west the smaller spring-fed watercourse known as Stoney Creek (Figure 2). On some survey plans and planning maps Stoney Creek is referred to as Ewelme Stream/Ewelme Creek.

The assessment area makes up a small part of a much larger alluvial fan that extends some distance inland and potentially still remains flood prone in places. A relict channel of the Kōwhai River runs roughly north to south diagonally through the centre of the assessment area and this likely once connected up in some form with Stoney Creek. During flood events, flows from the Kowhai River have historically overflowed into Stoney Creek inland of the assessment area in the Fernleigh Dip area (Wild 2020: 10). Various secondary sources relate how the adjacent stretch of the Kowhai River bed east of the Kaikōura Inland Road was formed by a major flood in February 1868. This was the first documented flood event after Europeans settled in the area, and was described by Sherrard (1966) as being ‘the greatest flood ever recorded on the Marlborough Coast’.

The Kowhai River was said to be named by early European settlers after the many Kowhai trees (*Sophora microphylla*) that lined its river banks. A lagoon names Te Wai-o-Rua-Rangi once existed where the current river mouth is, but this lagoon was wiped out when the newly-created river formed here a permanent opening to the ocean (Te Rūnanga o Ngāi Tahu 2021b, Elvy 1949: 74). It is highly likely that the area surrounding this lagoon area saw forms of occupation, though the 1868 flood event would certainly have had an impact on any archaeological traces of that occupation – either washing sites out to sea or otherwise burying them underneath alluvial sediments deposited by the floodwaters.

Where present, the silty soils of the subject area are fertile and make for growing good pasture, something identified very early on by the first European settlers of the Peketā area. Soils on some parts of the subject area may be more sparse and thin and found in association with near surface gravels, rocks, stones, and boulders all of alluvial deposition. This would have made the subject area less than ideal for the cultivation of kumara in the pre-European period. However adjacent watercourses would have been important mahinga kai (food gathering places) where resources such as birds and tuna (eels) could have been easily obtained.

### 3.0 HISTORICAL BACKGROUND

#### **Pre-European Period**<sup>6</sup>

Kaikōura was settled about 800 years ago by successive waves of Māori migration, each overwhelming and intermarrying with the former. Rapuwai, Waitaha, Ngāti Māmoe and Ngāti Kuri merged over time to form what is now recognised as Ngāi Tahu whānui. Occupation remains are ubiquitous on the raised pea gravel beaches that surround Kaikōura peninsula and numerous pa sites were established on elevated points and headlands along the coast both to the north and south.

There are strong oral histories associated with the Māori occupation of the Peketā area in Pre-European times, those histories focusing largely around the Ngāti Māmoe occupation and subsequent Ngai Tahu siege of Peketā Pa, located on the ridge top high above and immediately south of the Kahutara River. The flat coastal land of the wider Peketā landscape is certain to have formed part of the wider sphere of the pa occupation.

Peketā Pa is described in detail by Brailsford (1981: 131-136). The site was investigated in 1958 by Roger Duff and again in 1976 by a team of people working under the supervision of Michael Trotter. The Pa site has three distinct parts: the main pa on the western slopes of the ridge closest to the sea, a secondary refuge pa occupying a small ridge to the west, just up the river, and a dense cluster of pits between the two ridges.

Brailsford describes the pa as being one of the biggest occupied sites on the Kaikōura Coast, with over 100 terraces suitable for dwellings cut into the steep slopes. One of the excavated terraces was found to have been occupied by a double-pit house structure. The dished floor revealed a range of midden components including shell, fishbone, dog bone, dolphin bones and charcoal. Artefacts including bone fish hooks and argillite and pounamu adzes and chisels were also found within a pit-house. A number of trussed-type burials were also found at the site.

Traditional accounts indicate that the pa was built by Ngāti Māmoe after their defeat to Ngāi Tahu at Waipapa. Stack (1898: 56) describes the events:

*Having chosen a strong position at Peketa, on the hill-side at the mouth of the Kahutara, they built a fortified pa; and being joined by other sections of the tribe they were emboldened to attack a fishing party of the Ngai Tahu. They succeeded in capturing all the canoes but one, that of Te Kaue, which escaped with the loss of the most of the crew.*

This skirmish renewed hostilities between the two tribes:

*...a battle was fought at Opokihi, [located on Lyell Creek on the north side of Kaikoura township], and again on the banks of the Kahutara, in both which engagements Ngati Mamoe were defeated. They then retired within their fortifications, and Ngai Tahu laid siege, but failed for many months to effect an entrance.*

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<sup>6</sup> Information for this section is taken from Foster (2015) unless otherwise noted.

*A council of chiefs was then held, at which Rakai tauwheke proposed to draw the enemy out by stratagem. His plan was approved of and he proposed to carry it out the following morning. Putting on two feather mats, and armed with a patu paraoa, he went before dawn to the beach, and entering the surf threw himself down and allowed the waves to carry him backwards and forwards, occasionally raising his arm a little that it might appear like a fin. The sentinels soon took notice of the dark object in the water, which they concluded must either be a seal or a young whale. The cry of "He ika moana!" He ika moana!" brought the whole pa to their doors, and a general rush towards the beach followed, each striving to secure the prize. The pa was so close to the shore that the people did not hesitate to open the gates, and the foremost man plunged into the surf: but before he could discover his mistake, the supposed fish rose and struck him dead. The alarm was immediately given, and the crowd fell back within the stockade and the scheme failed. Weakened and wearied by war, the the two tribes made peace, which continued till broken by Manawa's raid on Omihi.*

Carrington (op. cit Brailsford 1981: 136) offers another version of the siege and describes a battle at Opokihi after which peace was declared. Peketā pa was reportedly dismantled after this battle and was not occupied again, "but the wide Kahutara valley became the site of many a kainga (living place)"

Another account by Taylor (1952: 18) describes a similar version of events:

*On the south side of the traffic bridge, high up, overlooking the Kahutara River the Ngati Mamoe built the impregnable fortress of Peketa after their eviction from the Clarence district. Assault after assault was made by the Ngai Tahu in efforts to capture it, so they laid siege to it as a last resort. Te Rakai tau wheke the Ngai Tahu leader enticed the garrison out by stratagem. He sported in the sea as a seal. The Ngati Mamoe pursued him towards Kaikoura. He out-distanced his pursuers, but led them into a Ngai Tahu ambush at Opokihi at Lyell Creek. Rakaitauwheke accounted for the Ngati Mamoe chiefs Popia and Tarere, and his friend Maru killed Te Puehu and Te Awe awe. Bereft of their leaders the rest of the Ngati Mamoe were easy prey. The folk left at Peketa abandoned the pa and journeyed south to Omihi.*

### **19<sup>th</sup> century period**

In the 1820's Ngāi Tahu were attacked by Te Rauparaha and his allies, who used muskets to gain the upper hand over their enemies. A series of devastating raids on major pā along the coast resulted in the routing of resident Ngāti Kuri, who fled inland and re-settled with their relations further south. By the 1830's Ngāi Tahu forces had counter-attacked and reclaimed much of the Kaikōura Coast. The population between the Clarence and the Conway Rivers is estimated to have reduced from around 3-4000 in 1827 to less than 100 people by 1857 as a result of those raids. The small Māori population in the Kaikōura region was one of the factors that found favour with early whalers who began to settle in the area from 1843, as they did not face the threat of being caught up with tribal battles or bands of marauding Māori. After 1859, much of the land was taken up by large run-holders, leaving only minor Reserves of poor land for the local Māori residents. By the 1860's the land was broken up into smaller runs, and pastoral farming gradually developed.

The Peketā area was evidently first taken up for European occupation sometime between 1842 and 1849, forming part of Fyffe's large pastoral lease known as the Kahutara run. When Fyffe (a whaler based at Avoca Point) first applied for a pastoral license for the run in early 1851 the boundaries of the run were described as being: "The Peninsula known as the Kaikora, with the land in the south bay extending to the second river, and inland to the base of the hills - North, by the peninsula of Kaikora; East, by the sea; South, by the river called by the natives But-a-but [Conway River]; West, by the base

of the hills. 100 sheep to be placed on the run" (*Lyttelton Times*, 30/8/1851: 2; Sherrard, 1965: 96). There are no available records to show whether Fyffe in any way developed his leasehold Peketa land during his occupation of the Kahutara run.

In late 1851 the majority of the coastal land between Fyffe's Kaikōura Peninsula whaling station in the north and the Kahutara River in the south was set aside to form the 'Kaikōura Peninsula Reserve'. The establishment of this reserve was seemingly a very pre-emptive attempt by the Crown to deny to squatters and runholders and to secure for their own future use and financial benefit the most fertile and accessible Kaikōura land. The boundaries of the Kahutara run were thereafter redrawn accordingly to terminate at the southern bank of the Kahutara River (*Lyttelton Times*, 18/10/1851: 4). In 1866 the Bullen brothers, Frederick and George Francis, purchased the Kahutara run from George Fyffe, which included a lease of Crown land as well as 7,700 acres of freehold 'improvements' and 9,000 sheep 'more or less' (Sherrard 1966: 124). In 1868 the Bullens added the Greenhills Run (about 39,000 acres) to their holdings (*Evening Post*, 12/7/1912: 7; McAloon, Simmons and Fairweather, 1998: 7). The Bullen's also at this time negotiated with the crown the lease of the Peketā portion of the Kaikoura Peninsula Reserve between the Kahutara and Kōwhai Rivers. (*Manawatu Standard* 12/7/1912: 5).

The Kaikōura Deed of Purchase was signed in 1859 following a complex series of negotiations between Crown representative James Mackay and local chiefs including the Ngāti Kuri chief Kaikōura Whakatau. Whakatau had requested a 50,000-hectare reserve between the Kahutara and Conway rivers be set aside from sale for his people but this was turned down because the land had already been leased out to 3 run holders. The final settlement saw the million-hectare Kaikōura block conveyed to the Crown for a sum of £300 and the provision of 14 mostly coastal reserves for the Maori inhabitants totalling 5,560 acres (land which Mackay later described as being "worthless"). The Crown also retained the right to confiscate parts of the Reserves for roading purposes without compensation. The 56 acre Kahutara G Native Reserve at the mouth of the Kahutara River was one of those reserves.

By 1863 the Peketa area was surveyed out into larger farming blocks, which from February 1864 were put up for sale by public auction (Sherrard 1966: 194). Most were purchased by the Bullen brothers and became part of the 'Elms Estate' (ibid: 122). In 1875 the Bullens built a new homestead they called 'The Elms' at what is today 518 State Highway 1, approx 1 km west of the assessment area. The Elms homestead and other 19<sup>th</sup> century outbuildings on the site (many built largely of unreinforced concrete) were obliterated in the 2016 Kaikoura Earthquake and have since been demolished.

In 1883 Frederick left for England and George took over the active management of the Bullen holdings (McAloon, Simmons and Fairweather, 1998: 7). George claimed the nation's interest during the mid-1880s by, apparently, conquering the rabbit scourge. He imported mongooses and ferrets to deal with the problem (*Nelson Evening Mail*, 23/8/1883: 2; *Wairarapa Daily Times*, 15/7/1884: 2; *Wairarapa Standard*, 6/8/1884: 2). The Bullen's landholdings in the district were substantial and they only got bigger over time. In 1896 George negotiated the exchange with the government of 3,000 acres of their freehold land to form the Kaikōura – Cheviot (today State Highway 1) and the Inland Kaikōura Roads for inland freehold hill country at Dog Hills and Mt Horrible (Sherrard 1966: 216). The Bullens also negotiated the lease of the coastal strip seaward of the Kaikoura- Cheviot Road between the Kahutara and Kowhai Rivers for grazing<sup>7</sup>. In 1907 Bullen sold his holdings to R. Letter, H.D. Buchanan, J.F.

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<sup>7</sup> This coastal strip was gazetted Scenic Reserve after the Kaikōura-Cheviot Road was formed in the 1890s. With the exception of the 8.9 ha strip occupied by the Kaikōura Aerodrome/Airport which was formed in 1964, ownership of this coastal strip reserve land (the 'Kahutara Reserve') was formally vested in Ngāi Tahu with the passing of the *Ngāi Tahu Claims Settlement Act* 1998.

Buchanan, H.D. Meares and J.O. Coop, better known as the 'Greenhills Syndicate' (Sherrard 1966: 124). Bullen retired to Christchurch, where he passed away in 1912 at the age of eighty.

1863 plan M858 is the earliest survey plan that shows the subject Peketa area, surveyed out into larger farming blocks that became part of the Elms Estate. The two land parcels that make up the assessment area were formed out of Kaikoura Suburban District sections 227 and 228 and no structures are shown on either of these two sections at this time (Figure 3). 1901 plan SO 1883 shows the existing access roads on the Elms Estate that were formally closed by this time as part of the 1896 government land exchange (Figure 4). 1902 plan SO 1918 shows the subject area after the Inland Kaikōura Road (then called Robb's Road) was formed. A new fenceline and gate running through the assessment area is shown on this plan, but no structures (Figure 5).



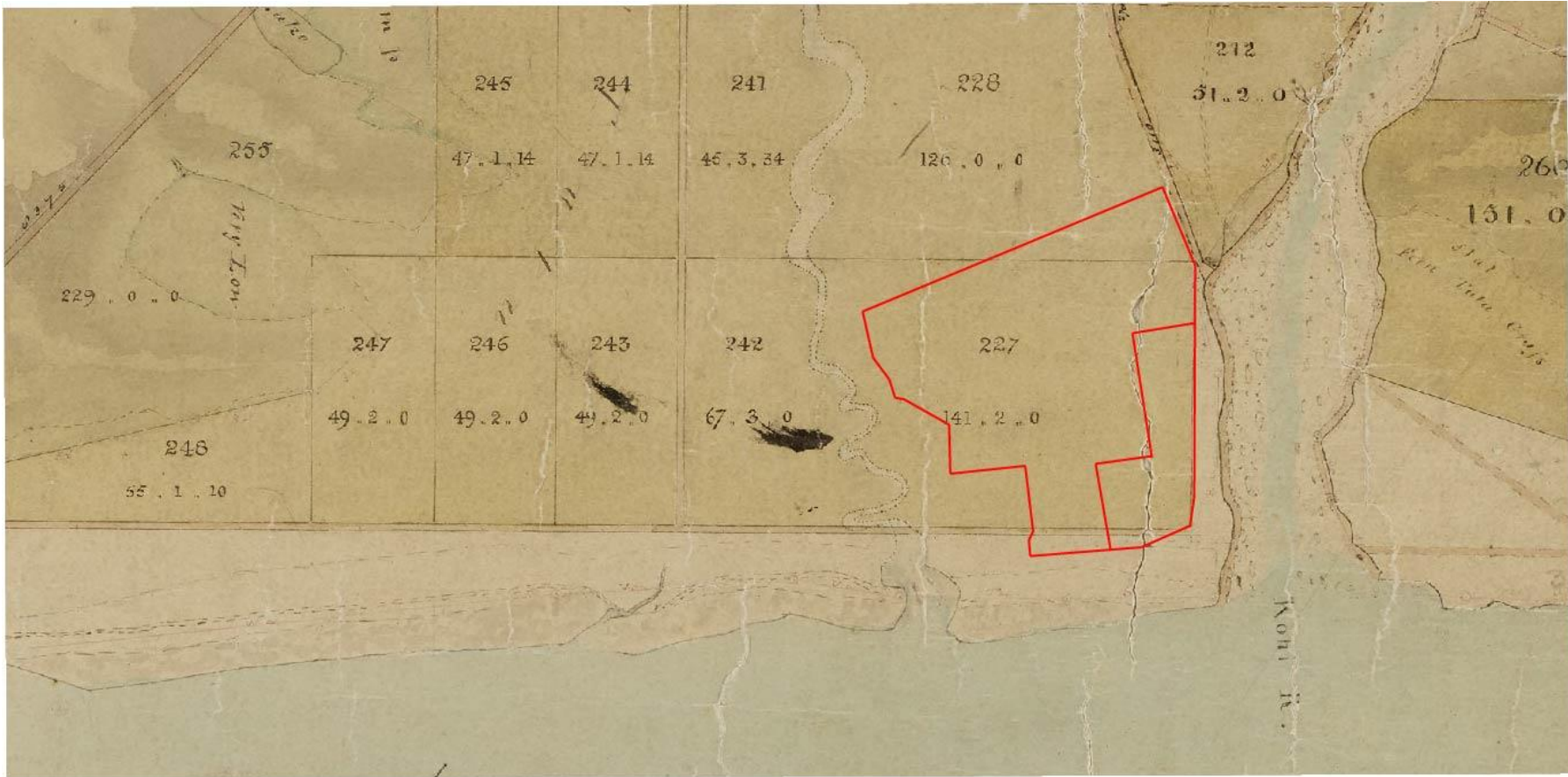


Figure 3. The relevant portion of 1863 survey plan M858, with the boundaries of the two subject land parcels that make up the assessment area overlaid in red. Image: Archives New Zealand, 1863.

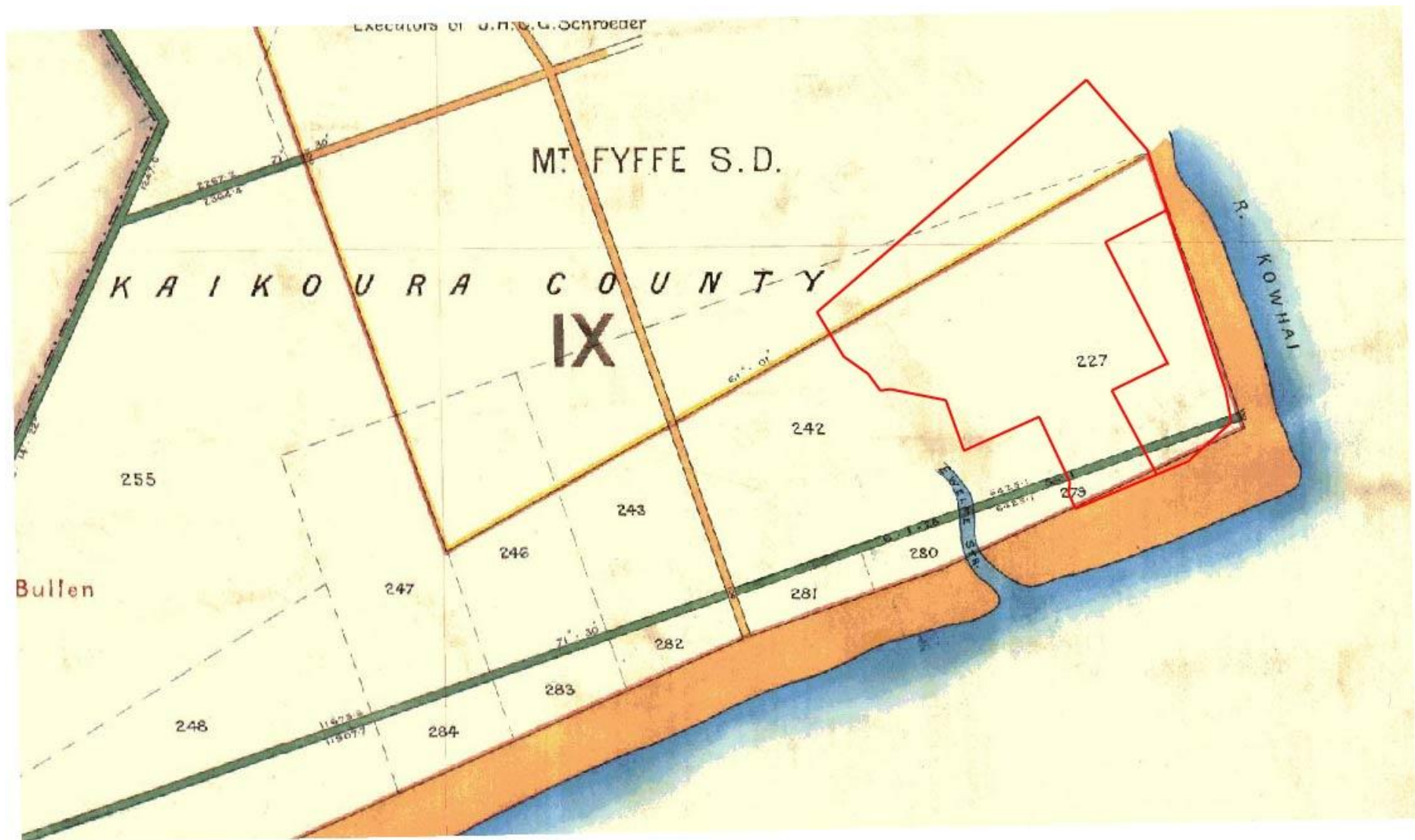


Figure 4. Relevant part of 1901 plan SO 1883 that shows (in green) the existing 19th century roads on the Elms Estate that were closed at this time. The boundaries of the two subject land parcels that make up the assessment area have been overlaid in red. Image: after Grip.co.nz.

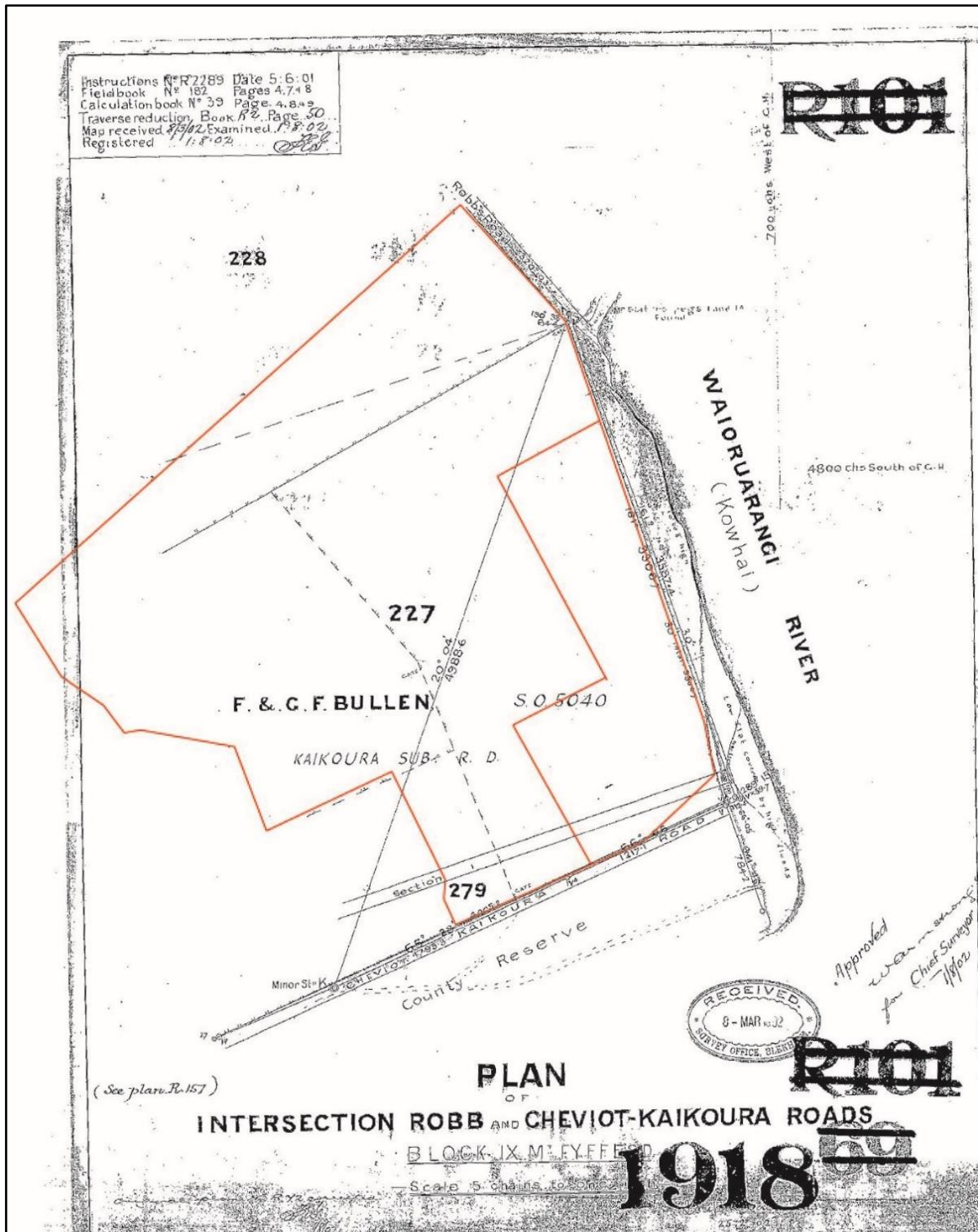


Figure 5. 1902 plan SO 1918 showing the subject area after the Kaikōura Inland Road (then called Robb's Road) was formed. The boundaries of the two land parcels that make up the assessment area have been overlaid in red. Image: after Grip.co.nz.

### 20<sup>th</sup> century period

In the 1930s land was taken from the Elms Estate in order to construct the Main North Railway Line. The Greenhills Syndicate retained ownership of the Bullens Estate into the 20<sup>th</sup> century before the estate began to be progressively sold off from the late 1940s (Figure 6). The assessment area

thereafter made up part of Hugh Davidson's dairy farm. Historic aerial imagery shows little in the way of development of the subject area in the modern period (Figure 7).

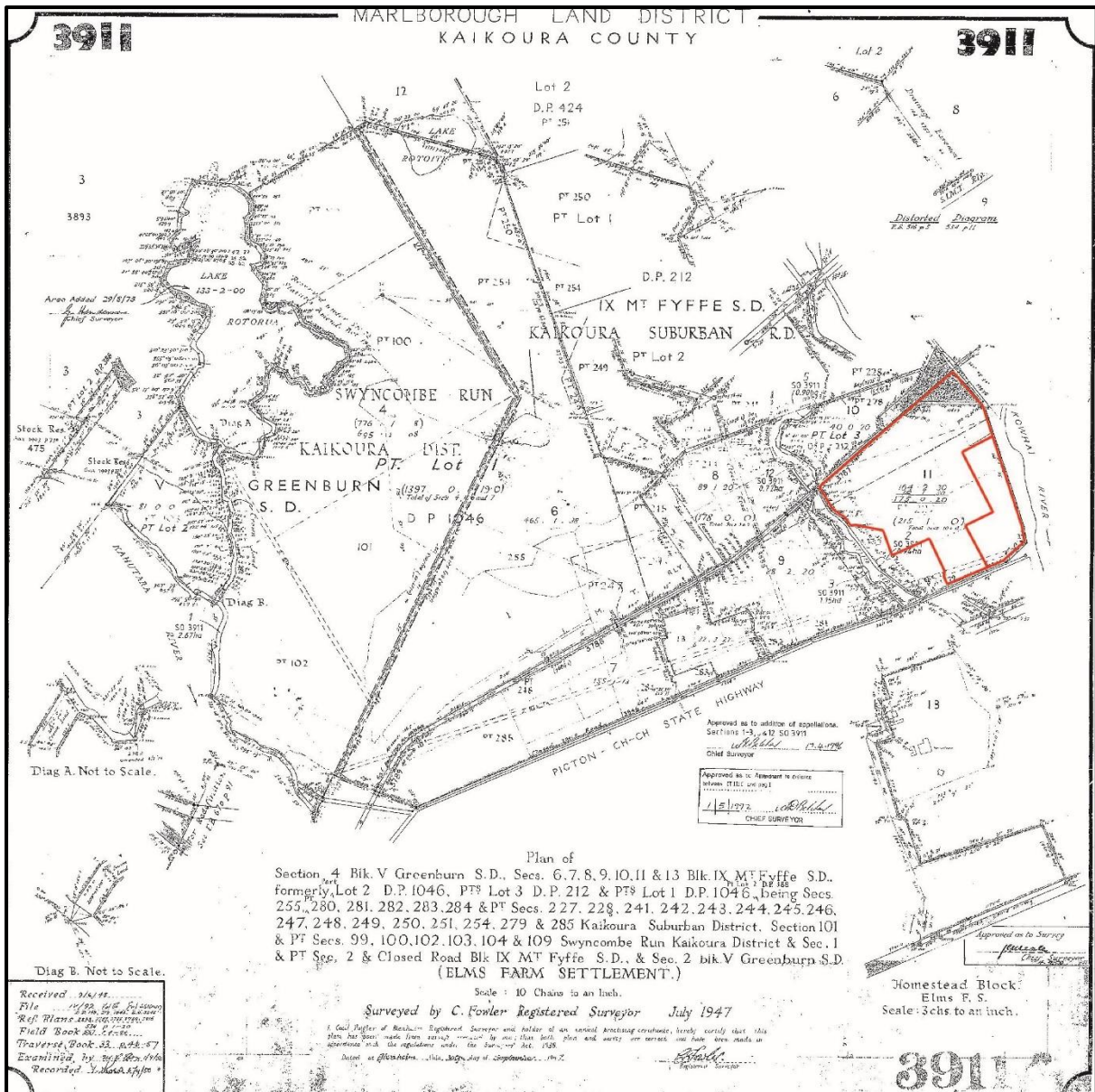


Figure 6. 1947 plan SO 3911 of the Elms Farm Settlement. The boundaries of the two land parcels that make up the assessment area have been overlaid in red. Image: after Grip.co.nz.



**Figure 7. 10 December 1942 aerial imagery of the Kowhai River mouth and immediate environs, with the boundaries of the two land parcels that make up the assessment area overlaid in red. Note that the Main North Line railway has not yet been formed, and the assessment area is just pasture. Image: after Retrolens.co.nz**

#### 4.0 RECORDED SITES AND PREVIOUS ARCHAEOLOGICAL WORK

ArchSite, operated by the New Zealand Archaeological Association, is the primary source of information about recorded archaeological sites. Local site records date back as early as 1958-59 when Tony Fomison was active in investigating and recording pa sites across the Kaikōura District. All the recorded sites near the assessment area are shown on the ArchSite map, and summary information about those sites is provided in Table 1 below.

There are no recorded sites located within the assessment area – most of the sites recorded across the greater Peketā area are located along the coastal strip seaward of State Highway 1. The closest and most relevant are sites O31/14, O31/85, O31/38, O31/145 and O31/166, all located west of Elms Creek some 800 m west of the assessment area.

Site O31/14 is Elms Pa, bounded on three sides by the Elms Stream/Creek, and by a ditch and bank defensive wall on the fourth side. The site is bisected by State Highway 1, with ovenstones, fire blackened soil, and artefacts found in association. Not enough is really known about this site, nor whether its occupation was contemporaneous with that of the much larger and better known Peketā Pa overlooking the Kahutara River much further to the west. O31/85 was recorded in 1994 by DOC archaeologist Steve Bagley and records scattered surface finds of ovenstones and artefacts across an old dune ridge on the Kahutara Recreation Reserve between Elms Pa and Kaikōura Airport. O31/38 records midden and oven stones recorded in 1966 in approximately the same location as O31/85. O31/166 are pits (possibly associated with kumara storage structures) recorded earlier this year at the eastern end of the Kaikōura Airport. O31/145 is the location of the Bullen's 1875 Elms homestead, destroyed in the 2016 earthquakes. This is the only recorded site that is associated with pre-1900 European occupation of the Peketā area.

Sites O31/22, O31/25, O31/54, O31/98, 99, 100, 101, and 102 represent a variety of site types including ovens, midden, and artefact findspots located approximately 1 km east of the assessment area. Most of these sites were found and investigated in 2005 and 2006 during the course of earthworks undertaken to form the Ocean Ridge subdivision. Like the clustering of sites west of Elms Creek, these sites all further point to the sand dunes of the coastal strip as being places where Māori occupation and activity in the pre-European period was more extensive and sustained than areas further inland. The absence of any sites recorded along the coastal strip immediately south of the assessment area and near the Kowhai River mouth might possibly be related to the fact that the Great Flood of February 1868 substantially modified this area. As previously noted, the raging 1868 floodwaters could have wholly destroyed or otherwise buried under alluvial sediments any archaeological deposits present.

Site O31/50, a cluster of about 6 ovens, was reported found approximately 700 m northeast of the assessment area in 1971. This site (located somewhere in a farm paddock at 180 Inland Road) is a rare example of an inland site associated with pre-1900 Māori occupation. The ArchSite record describes the site as being uncovered (and ultimately destroyed) by ploughing activities, and that these ovens were found 'on a high shingle edge' – possibly what was once the edge of the Kowhai River before its braided course changed. This site not only demonstrates that occupation sites (possibly representing seasonal, intermittent, or temporary rather than permanent all year round encampments) are not unknown from the inland Peketā area, (and therefore could also be found within the proposed development area), but also that such inland sites are at great risk of having been damaged or wholly destroyed by farming activities, specifically ploughing.

For the most part, to date there have only been limited works undertaken under Archaeological Authority in the vicinity of the assessment area. SH1 seal widening safety improvement works at Peketa completed under Authority 2017/744EM1 were subject to monitoring by members of the NCTIR archaeology team in 2020. However all of those works were all very shallow and nothing archaeological was uncovered. Recent works by MainPower to replace aging power poles across the Peketa area under Authority 2020/448 was subject to archaeological monitoring in 2020. Unlike the shallow NCTIR seal widening works, the replacement power pole holes were rather deep (up to 2.2 m), but again nothing archaeological was uncovered. MainPower's Peketa pole replacement works are ongoing.

Of most relevance to this assessment were works only very recently completed along the western side of the Inland Kaikoura Road for the installation of Chorus UFB (ultra-fast broadband) fibre-optic cable ducting. Those works (under Authority 2021/489) involved trenching 0.6 to 0.9 m deep between State Highway 1 and the rail line (approx. 1100 m) and were subject to archaeological monitoring by Hamish Williams (Home Guard Heritage Archaeology) and cultural monitoring by Norm Kerei-Keepa (Te Rūnanga o Kaikōura). Nothing even remotely archaeological was found during the course of this work, (which will enable fibre-optic telecommunications connections to be made to the proposed new subdivision), and only natural undisturbed old alluvial riverbed deposits (comprising rocks, stones, boulders and sandy/silty gravels) were exposed (Figure 9 and Figure 10).



Figure 8. ArchSite Map showing the location of recorded archaeological sites in the vicinity of the assessment area (boundaries of the two subject land parcels outlined in red). Image: after ArchSite, 2021.



**Table 1. Recorded archaeological sites in the vicinity of the assessment area.**

<b>SITE #</b>	<b>DATE SITE WAS FIRST RECORDED</b>	<b>RECORDER</b>	<b>SITE TYPE/ NAME</b>	<b>COMMENTS</b>
O31/14	1959	McKenzie	Elms Pa	Not found by Fomison in 1961, found and re-recorded by Trotter and McCulloch in 1998 and 2001.
O31/85	1994	Bagley	Ovenstones, artefacts	Occupational surface evidence found across c. 500 m of the Kahutara Recreation Reserve between Elms Pa and Kaikōura Airport.
O31/38	1966	Gray/Duff	Midden, oven	In the Dunes opposite Elms Motor Camp (approximately same general location as O31/85)
O31/145	2019	Habberfield-Short	Elms Homestead	The 1875 homestead / farmstead of George and Frederick Bullen. Elms Homestead and late 19 <sup>th</sup> century outbuildings destroyed by 2016 earthquake.
O31/146	2021	Williams	Pit(s)	Oval shaped pit at the eastern end of Kaikōura Airport, close to boundary fence of the Kahutara Recreation Reserve. Possibly a second pit located close by, (but this one infilled/capped with 20thc fill).
O31/22	1963	Fomison	Midden, artefacts	Midden and lithic artefacts exposed by erosion on a large deflated sand dune on a tee of the golf course in 1963.
O31/50	1971	Orchiston	Ovens	A group of about 6 ovens in farmer's paddock, site destroyed by ploughing. Ovens located on a high shingle edge – possibly along edge of old course of Kowhai River.
O31/125	2015	Foster	Midden, artefacts, ovenstones	Various occupation material uncovered at depth of 0.8 m during the course of trenching for power cable installation at 116 SH1.
O31/100	2006	Watson, Allingham	Ovens	Two ovens uncovered during excavations for a pond at the entrance to Ocean Ridge subdivision.
O31/101	2006	Stirling	Artefact findspot	Large (462 mm long) argillite adze-head found at Ocean Ridge by an earthworks contractor.
O31/99	2006	Trotter	Ovenstones	Found during the course of Ocean Ridge landscaping works.
O31/98	2005	Edwards, Stirling	Ovens, ovenstones	Cluster of nine umu (ovens) and fire areas uncovered 300 m east of Ocean Ridge subdivision entrance.
O31/102	2009	Trotter	ovenstones	Scattered ovenstones on the surface of a sandhills track opposite the main entrance to Ocean Ridge.
O31/54	1975	Harrowfield, Trotter	Midden/ovens	Occupation material exposed by road cutting in front of and near The Caves cafeteria, SH1.



Figure 9. Chorus UFB trenching along the western side of the Inland Kaikoura Road, looking south towards SH1. The proposed commercial development lot (Lot 2 DP 501321) is at right. Image: Hamish Williams 10/6/2021.



Figure 10. Representative section of stratigraphy exposed by the Inland Kaikōura Road UFB trenching, showing the natural undisturbed old riverbed deposits of stones and gravel. Image: Hamish Williams 11/6/2021.

## 5.0 STATUTORY REQUIREMENTS

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) and the *Resource Management Act 1991* (RMA). Additionally, archaeological artefacts are further protected by the *Protected Objects Act 1975* (POA).

### *Heritage New Zealand Pouhere Taonga Act 2014*

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

Under the act, archaeological sites are 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).

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

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

Archaeological sites are protected under Section 42 of the act, and it is an offense to carry out work that may "modify or destroy, or cause to be modified or destroyed, the whole or any part of that site if that person knows, or ought reasonably to have suspected, that the site is an archaeological site." All sites that meet the Heritage New Zealand definition are protected, on land of all tenure including public, private, and designated land, regardless of whether:

- The site is recorded in the New Zealand Archaeological Association (NZAA) ArchSite Site Recording Scheme or is Listed 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 for the work has already been granted.

Each individual who knowingly damages or destroys an archaeological site without having the appropriate authority to do so is liable, on conviction, to substantial fines (Section 87).

Any person wishing to carry out work on an archaeological site that may modify or destroy any part of the site, including scientific investigations, must first obtain an authority from Heritage New Zealand (Sections 44(a, c)). The act stipulates that an application must be sought even if the effects on the archaeological site will be no more than minor as per Section 44(b). A significant change from the

Historic Places Act (1993) is that “an authority is not required to permit work on a building that is an archaeological site unless the work will result in the demolition of the whole building” (Section 42(3)).

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

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

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

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

#### *Resource Management Act 1991*

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

The heritage provisions of the RMA were strengthened with the passing of the *Resource Management Amendment Act 2003*. The *Resource Management Amendment Act 2003* contains a more detailed definition of heritage sites and now considers historic heritage to be a matter of national importance under Section 6. The RMA requires city, district, and regional councils to manage the use,

development, and protection of natural and physical resources in a way that provides for the well-being of today's communities while safeguarding the options of future generations.

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

The regulatory controls for historic heritage are specific to each local authority. However, most local authorities will require RMA resource consent for any alterations, additions, demolition, or new construction (near a listed place) with Heritage New Zealand being recognised as an affected party. Repair and maintenance works are generally considered permitted activities that do not require resource consent. Where resource consent is required for any activity, an assessment of effects is required to address any cultural and heritage matters.

### The Kaikōura District Plan

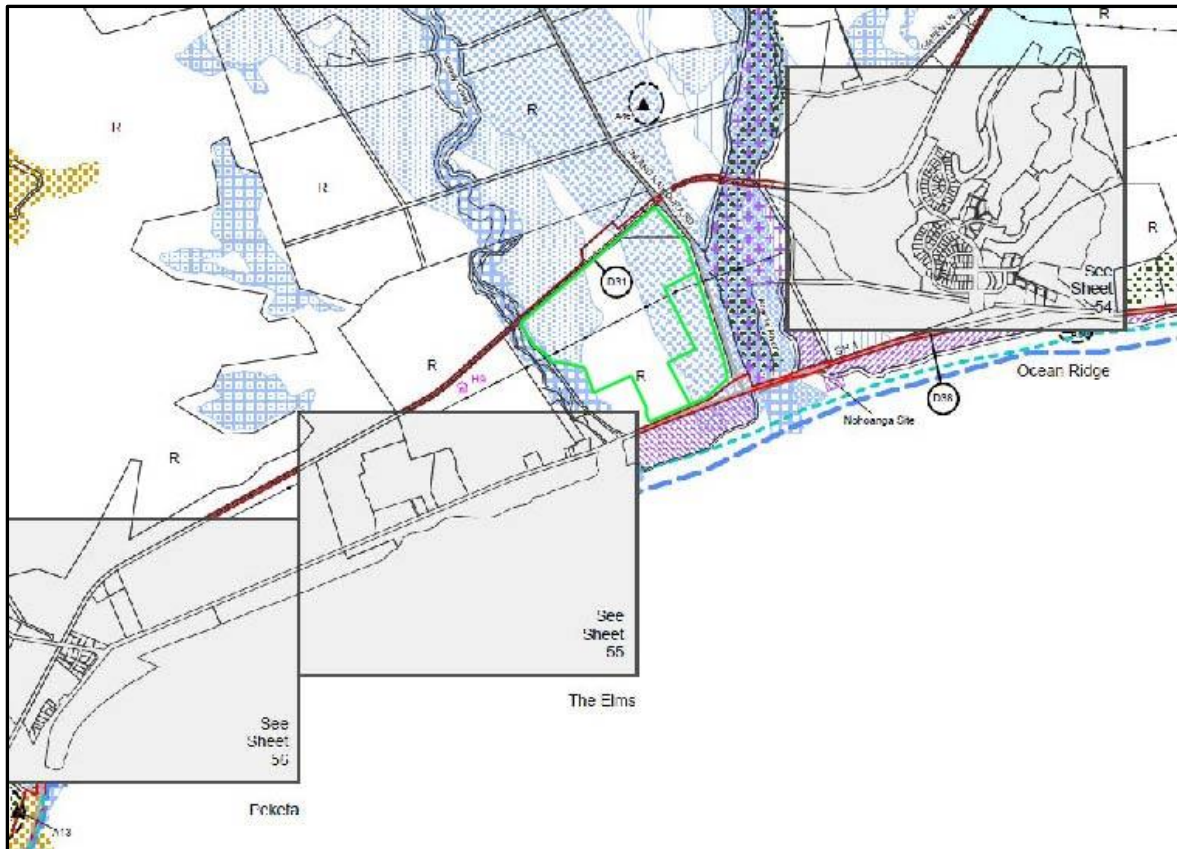
As required under the RMA, Kaikōura District Council's Kaikōura District Plan is the document sets the standards for development within the Kaikōura District. The current version of the plan has been operative since 23 June 2008 as much has changed in the district since then (not least in respect to historic heritage). The Council in November 2018 confirmed that the plan will be reviewed as a series of progressive plan changes (a 'rolling review') rather than reviewing the entire document all at once. At time of writing, currently only the natural hazard provisions are under review<sup>8</sup>.

The rules about activities that may affect historic heritage are outlined in Section 15 of the Kaikōura District Plan, which in places reads a bit clunky. Section 15.8 covers the permitted, controlled and discretionary activities in association with Archaeological Sites, Archaeological Areas, Historic Areas and Wāhi Tapu in the district (as outlined in Appendix E).

The Assessment area is shown on planning map 41 (Figure 11). This map does not show any Archaeological Sites, Archaeological Areas, Historic Areas or Wāhi Tapu within the assessment area.

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<sup>8</sup> <https://www.kaikoura.govt.nz/our-council/plans-reports-bylaws-and-policies/>



**Figure 11. Kaikōura District Plan Planning Map 41, with the boundaries of the two land parcels that make up the assessment area outlined in green). Image: after Kaikōura District Council.**

## 6.0 DESCRIPTION OF PROPOSED WORKS<sup>9</sup>

The proposed works are in relation to Kaikōura Business Park 2021 Ltd’s development of Lot 2 DP 527436 (50.73 ha) into a lifestyle block subdivision (called Kowhai Downs, Figure 12) and Lot 2 DP 501321 (11.02 ha) into a business park/commercial subdivision (name TBC, Figure 13). Kaikōura Business Park 2021 will undertake all Stage 1 earthworks required to form both subdivisions, but will not further develop any of the individual lots beyond fencing them, the individual lots will be put up for sale as bare land. Works to form the Kowhai Downs lifestyle block subdivision will take place first. Works to form the commercial subdivision will not take place until a planning change has been confirmed by Kaikōura District Council, because the land is currently rural (and not commercial) zoned.

The Kowhai Downs subdivision will comprise 18 individual lifestyle block lots each of approximately 2 ha size, with sealed vehicle access to the subdivision off the Inland Kaikōura Road (Figure 14 and Figure 15). Each lot will be sold with water, power, and fibre-optic telecommunications services laid on to each of the new lot boundaries. The subdivision’s water supply will be from an existing onsite artesian well. Still to be confirmed is the construction of an onsite wastewater treatment system that will serve all 18 Kowhai Downs lots, and the 22 lots of the proposed commercial subdivision as well. This wastewater treatment plant system is tentatively planned to be installed on Lots 19/20, both of these lots will be excluded from general sale<sup>10</sup>.

<sup>9</sup> Information about the proposed works provided by Richard Watherston and Baseline Group Ltd and is subject to approval by Kaikōura District Council.

<sup>10</sup> Lot 20 of 10.53 ha is a possible future commercial development lot, pending approval from Kaikōura District Council and their rezoning of the land from rural to commercial.

Kaikoura Business Park 2021 Ltd will form all of the subdivision's sealed access roads, which will be approximately 20 m wide and necessitate excavations up to approx. 0.3 m deep to remove topsoil before imported aggregates will be laid down and compacted to form a suitable roading base course. Trenching up to 1 m deep within these access roads will be required to install the water, telecommunications, electricity, and possibly also wastewater services to the new lot boundaries. Concrete kerb and channel and grassed swales will connect up with several soak pits that will be up to 15 m long, 2 m wide, and 2.5 m deep to manage stormwater flows. Details of any excavations required for any related landscaping works (such as tree planting pits) on the grassed berms in front of the new lots are not yet confirmed, but these are unlikely to be more than 0.5 m deep.

Preliminary service layout plans (albeit provisional and subject to Kaikōura District Council approval) are included at the end of this report as Appendix B.

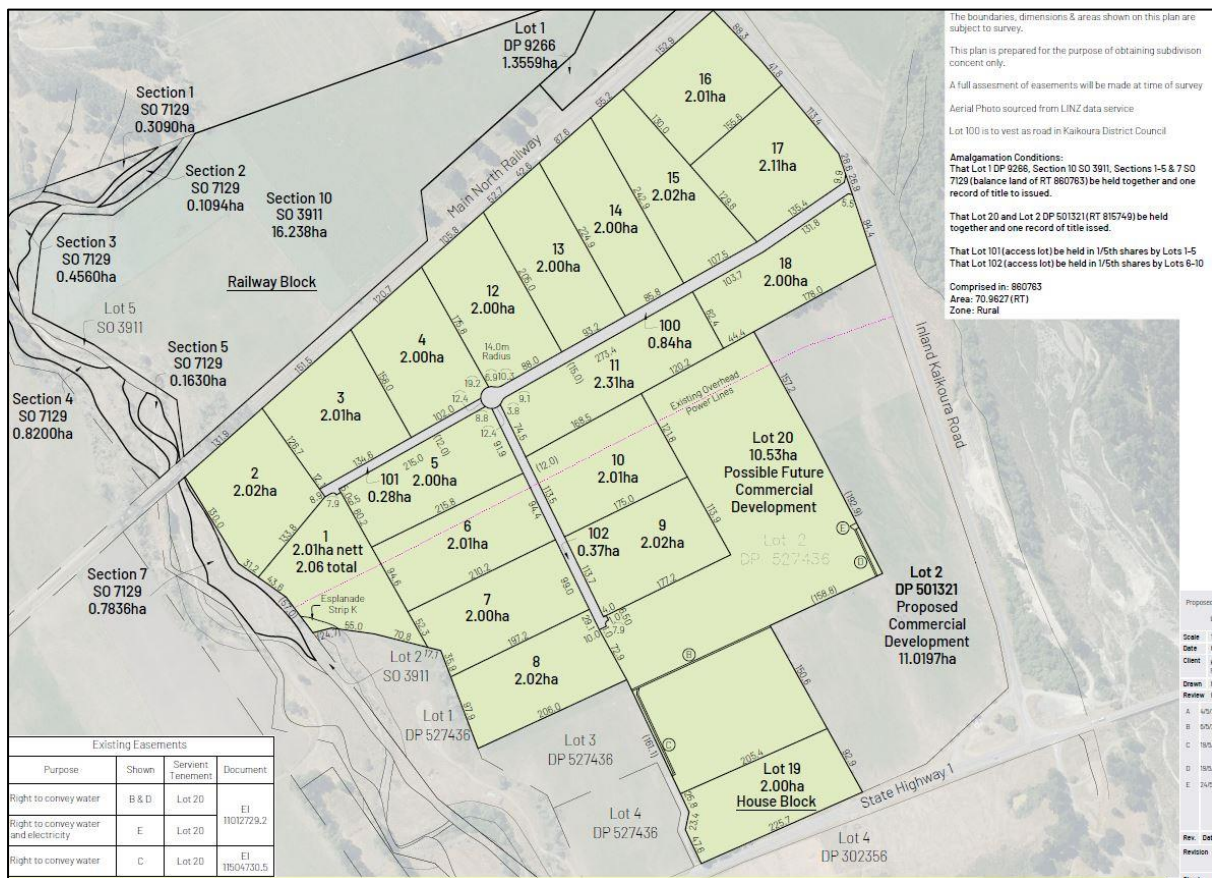


Figure 12. Plan showing the proposed layout of the Kowhai Downs Lifestyle Block subdivision to be formed out of Lot 2 DP 527436. Image: Baseline Group Ltd.

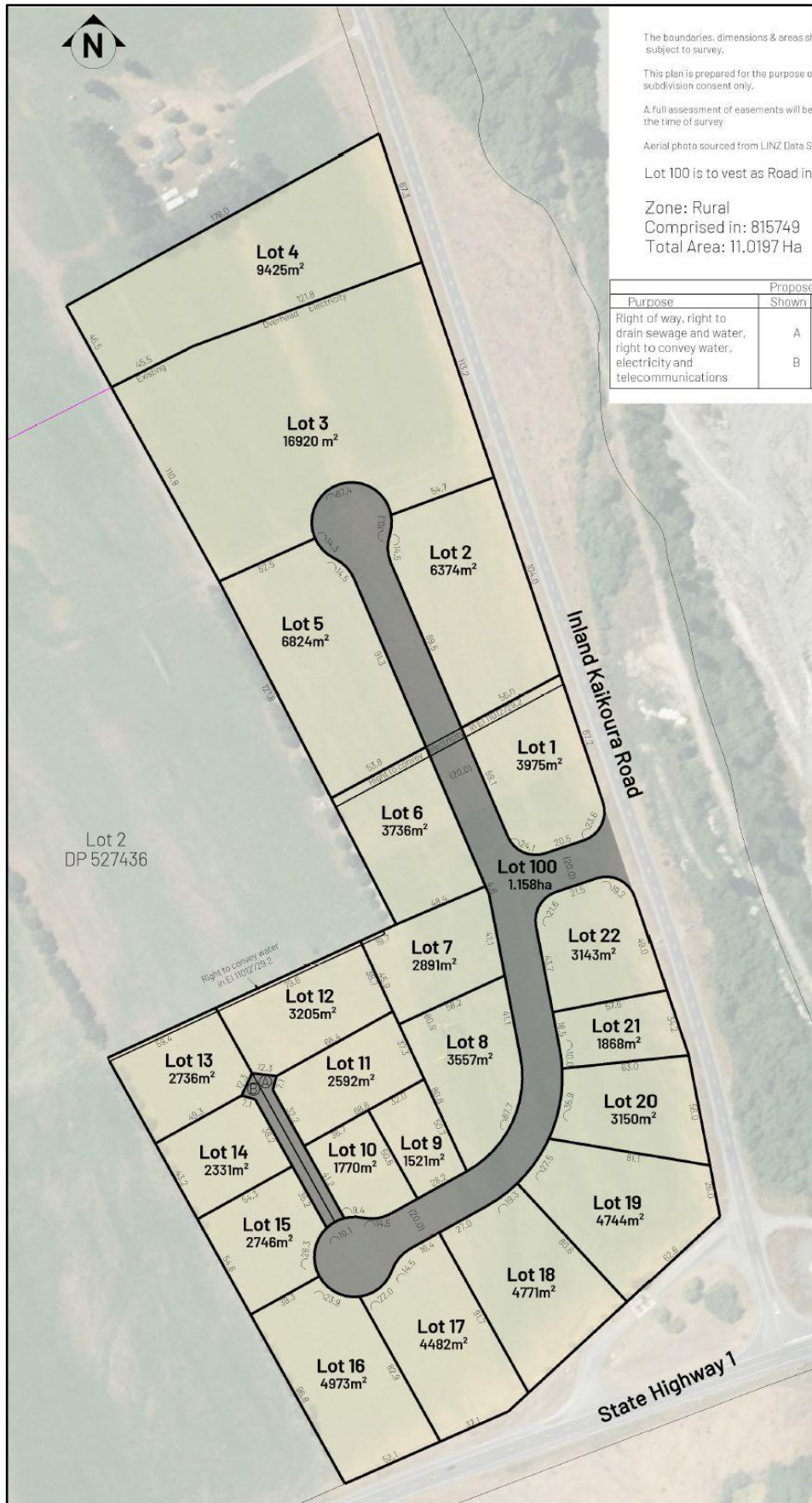


Figure 13. Plan showing the proposed layout of the commercial subdivision to be formed out of Lot 2 DP 501321. Image: Baseline Group Ltd.



## KOWHAI DOWNS



Figure 14. Oblique satellite aerial imagery view of the proposed Kowhai Downs Lifestyle Block subdivision, showing the layout of the 18 2ha lots (overlaid in green) and layout of the sealed access road (overlaid in grey) that will be formed off the Inland Kaikōura Road. Image: <https://raywhite.co.nz/marlborough/kaikoura/kaikoura/MET32582/>

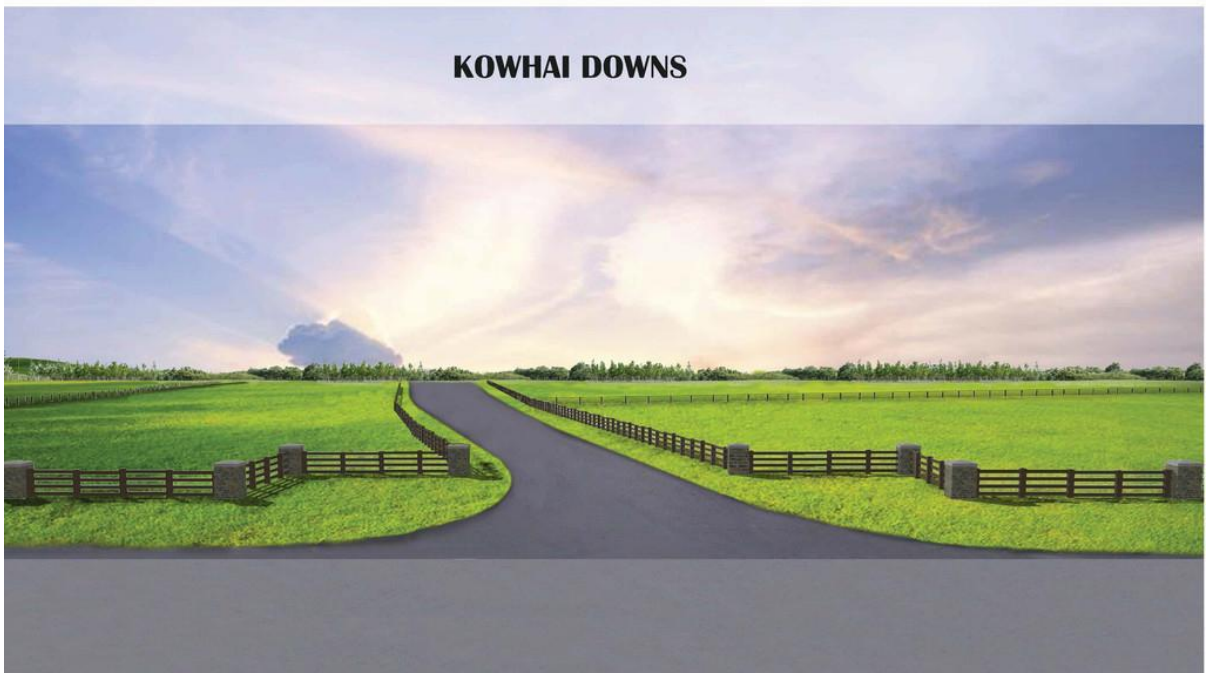


Figure 15. Concept drawing showing the proposed entrance to the Kowhai Downs subdivision off the Inland Kaikōura Road. Image: <https://raywhite.co.nz/marlborough/kaikoura/kaikoura/MET32582/>

## 6.1 SITE VISIT AND TEST PITS

Hamish Williams (Home Guard Heritage Archaeology) and Dr Angel Trendafilov (Angel's Archaeology) visited the site on 14 June 2021 to conduct a brief walkover of the proposed lifestyle block and commercial subdivision developments and discuss the scope of the Stage 1 earthworks with Richard Watherston. Dr Angel Trendafilov revisited the site on 25 June 2021 to thoroughly walk over the Stage 1 works locations and look for surface archaeological indicators. Sixteen test pits were dug in order to better understand the archaeological potential of the site. These test pits were spaced approximately 100 m apart, and were dug with a small 1.8 tonne mechanical excavator equipped with a 1 m wide flat edged bucket. A large stockpile of brown loamy topsoil which had been previously stripped off the top of the commercial development lot and dumped on the Kowhai Downs Lot 1 was also inspected for archaeological material at this time.

No surface archaeological material was observed across any parts of the Stage 1 works locations, and an inspection of the stockpile of topsoil previously stripped off the surface of the commercial development lot did not reveal any archaeological material (Figure 16). Nothing archaeological was identified in any of the 16 test pits, these revealed only natural undisturbed alluvial layers gravel, rocks, stones, and silty clay.

Figure 17 and Figure 18 are plans that show the location of the sixteen test pits that were dug across the Stage 1 works areas. The test pit locations were recorded with a Garmin GPS 64sx handheld GPS to WGS Latitude/Longitude coordinates (3 m accuracy). Summary information about those test pits is provided in Table 2 below.



**Figure 16. The stockpile of silty topsoil removed from off the proposed commercial development lot, looking west. Scale Increments are 100 mm. Image: Angel Trendafilov.**



Figure 17. Marked up 2021 aerial imagery of the assessment area (boundary outlined in yellow) showing the location of the 16 test pits (red pins). Image: Angel Trendafilov after Google Earth.

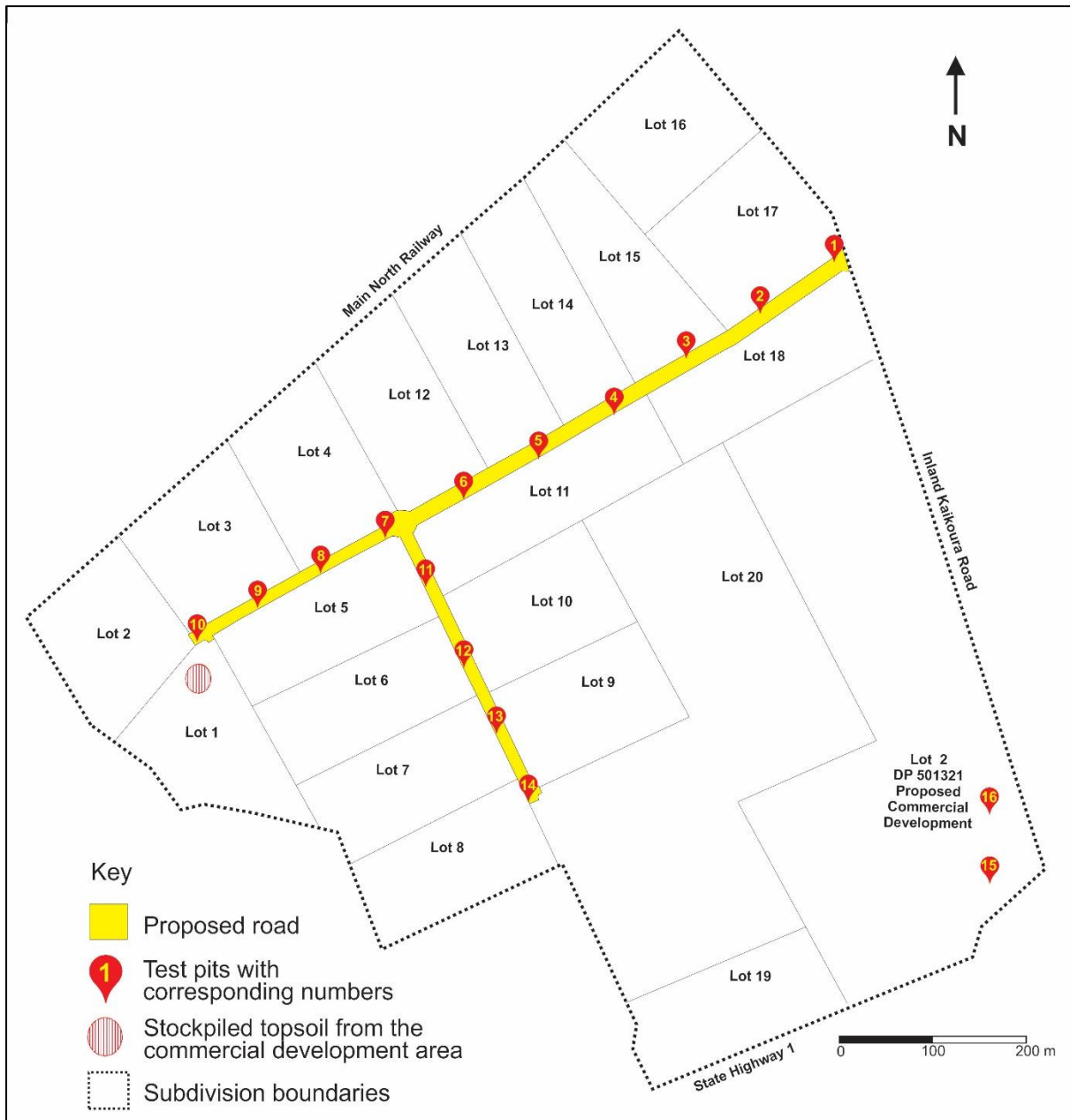


Figure 18. Plan of the assessment area showing the location of the 16 test pits, and location of the stockpile of topsoil stripped from off the proposed commercial development. Image: Angel Trendafilov.

**Table 2. Information about the 16 test pits dug in the Stage 1 works locations.**

<b>Test Pit #</b>	<b>Lat.</b>	<b>Long.</b>	<b>Test Pit dimensions Length X Width X Depth (m)</b>	<b>Observed stratigraphy, notes</b>	<b>Figure reference</b>
1	S42°24 .597'	E173° 37.635'	1.0 x 1.0 x 0.6	Closest test pit to Inland Kaikōura Road. 0.2 m dark brown silty topsoil atop alluvial gravels, rock, coarse sand, silt. No archaeology.	Figure 19, Figure 20
2	S42°24 .625'	E173° 37.572'	1.0 x 1.0 x 0.5	0.2 m dark brown silty topsoil atop alluvial gravels, rock, coarse sand, silt. No archaeology.	Figure 21
3	S42°24 .650'	E173° 37.516'	1.0 x 1.0 x 0.5	0.2 m dark brown silty topsoil atop alluvial gravels, rock, coarse sand, silt. Larger rocks and boulders. No archaeology.	Figure 22
4	S42°24 .684'	E173° 37.464'	1.0 x 1.0 x 0.5	0.2 m dark brown silty topsoil atop alluvial gravels, rock, coarse sand, silt. Larger rocks and boulders. No archaeology.	Figure 23
5	S42°24 .704'	E173° 37.406'	1.0 x 1.0 x 0.8	0.3 m dark brown silty topsoil atop alluvial gravels, rock, coarse sand, silt. Tan silty clay at base of test pit. No archaeology.	Figure 24
6	S42°24 .729'	E173° 37.348'	1.0 x 1.0 x 0.65	0.3 m of brown silty topsoil atop tan silty clay. Absence of rocks, stones, gravels. No archaeology.	Figure 25
7	S42°24 .751'	E173° 37.291'	1.0 x 1.0 x 0.6	0.3 m of brown silty topsoil atop tan silty clay. Only minor trace of rocks, stones, gravels. No archaeology.	n/a
8	S42°24 .775'	E173° 37.235'	1.0 x 1.0 x 0.6	0.3 m of brown silty topsoil atop tan silty clay. Only minor trace of rocks, stones, gravels. No archaeology.	n/a
9	S42°24 .800'	E173° 37.176'	1.0 x 1.0 x 0.6	0.3 m of brown silty topsoil atop tan silty clay. Absence of rocks, stones, gravels. No archaeology.	Figure 26
10	S42°24 .824'	E173° 37.118'	2.5 x 1.0 x 0.6	A 2.5 m long test trench on what will be the access road road shoulder. 0.3 m of brown silty topsoil atop tan silty clay. Only minor trace of rocks, stones, gravels. No archaeology.	Figure 27
11	S42°24 .783'	E173° 37.331'	1.0 x 1.0 x 0.6	0.3 m of brown silty topsoil atop tan silty clay. Only minor trace of rocks, stones, gravels. No archaeology	Figure 28
12	S42°24 .826'	E173° 37.358'	1.0 x 1.0 x 0.65	0.3 m of brown silty topsoil atop tan silty clay. Absence of rocks, stones, gravels. No archaeology.	Figure 29
13	S42°24 .863'	E173° 37.382'	1.0 x 1.0 x 0.7	0.3 m of brown silty topsoil atop tan silty clay. Absence of rocks, stones, gravels. No archaeology.	n/a

<b>Test Pit #</b>	<b>Lat.</b>	<b>Long.</b>	<b>Test Pit dimensions Length X Width X Depth (m)</b>	<b>Observed stratigraphy, notes</b>	<b>Figure reference</b>
14	S42°24 .906'	E173° 37.409'	1.0 x 1.0 x 0.7	0.3 m of brown silty topsoil atop tan silty clay. Absence of rocks, stones, gravels. No archaeology.	Figure 30
15	S42°24 .947'	E173° 37.744'	1.0 x 1.0 x 0.5	Dug within proposed commercial development lot. Only natural alluvial rocks, stones, gravels in tan silty matrix exposed (overlying silty topsoil previously removed). No archaeology.	Figure 31
16	S42°24 .913'	E173° 37.744'	1.0 x 1.0 x 0.6	Dug within proposed commercial development lot. Only natural alluvial rocks, stones, gravels in tan silty matrix exposed (overlying silty topsoil previously removed). No archaeology.	Figure 32



**Figure 19. Test pit 1 under excavation, looking east, with the Inland Kaikōura Road visible in the background. Image: Angel Trendafilov.**



**Figure 20. Test pit 1, showing natural river rocks and stones. Scale increments are 100 mm. Image: Angel Trendafilov.**



Figure 21. Test pit 2, looking east. Scale increments are 100 mm. Image: Angel Trendafilov.



Figure 22. Test pit 3, looking south. Scale increments are 100 mm. Image: Angel Trendafilov.





Figure 23. Test pit 4, looking north. Scale increments are 100 mm. Image: Angel Trendafilov.



Figure 24. Test pit 5, looking south. Scale increments are 100 mm. Image: Angel Trendafilov.



Figure 25. Test Pit 6, looking south. Note the absence of rocks, stones, gravels. Scale increments are 100 mm. Image: Angel Trendafilov.



Figure 26. Test pit 9, looking west. Scale increments are 100 mm. Image: Angel Trendafilov.



Figure 27. Test pit 10 (a 2.5 m long trench), looking west. Scale increments are 100 mm. Image: Angel Trendafilov.



Figure 28. Test pit 11, looking west. Scale increments are 100 mm. Image: Angel Trendafilov.



Figure 29. Test pit 12, looking west. Scale increments are 100 mm. Image: Angel Trendafilov.



Figure 30. Test pit 14, looking west. Scale increments are 100 mm. Imager: Angel Trendafilov.



Figure 31. The proposed commercial development lot, looking south towards SH1. The overlying brown silty topsoil was previously removed from across this area, exposing the underlying sterile alluvial gravels, rocks, and stones. Image: Angel Trendafilov.



Figure 32. Test pit 16, looking south. Scale increments are 100 mm. Image: Angel Trendafilov.

## 7.0 CONCLUSION

Varied primary, secondary, and oral history sources show that the assessment area makes up just a small part of the much larger Peketā landscape that was occupied by Māori prior to 1900. From the 1840s the subject land saw European activity and occupation in the form of sheep farming, eventually becoming part of the Bullen Brothers' expansive Elms Estate. The subject area continued to be used for farming through the 20<sup>th</sup> century, though land use changed slightly in this modern period, with a transition from sheep to dairy and cattle beef farming occurring. The proposed subdivision and development of the land by Kaikōura Business Park 2021 Ltd will see the formation of a lifestyle block subdivision – Kowhai Downs – and pending Kaikōura District Council rezoning of Lot 2 DP501321, a commercial subdivision established.

Although there are a number of recorded archaeological sites associated with pre-1900 Māori occupation of the Peketā area, there are none recorded within or in close proximity to the assessment area itself. The majority of those recorded sites are situated along the coastal strip seaward of State Highway 1 (refer Figure 8) with only a few recorded sites located in more inland locations. The great flood of February 1868 is known to have substantially modified the landscape of the subject area, and it is suspected that this big flooding event would in some fashion have impacted the survivability of any archaeological deposits present. The assessment area is situated on an alluvial fan, and the Kowhai River once ran through the subject area, though whether this occurred before or within the period of Māori occupation is not known. There are strong traditions of there being extensive Māori kumara gardens in more inland parts of the Peketā flat that fed populations living in coastal settlements, however it is highly unlikely that any such gardens would have been located within the assessment area itself. This is because the alluvial nature of the substrate – heavy with gravels, rocks, and stones would have made kumara gardening here less than ideal. This being said, other food resources like birds and eels would have been food resources readily obtainable from the watercourses adjacent to the assessment area, though such activities are unlikely to have left much, if anything, in the way of archaeological traces on the landscape.

It is unlikely that any pre-1900 archaeological deposits associated with European farming activities would be found within the proposed development area. Early survey plans do not show any farm building structures or other similar features present, though parts of the subject area were surely fenced in this period. If any subsurface remains of old fence posts were possibly uncovered, it would be almost impossible to determine that these were pre-1900 features. It is unlikely that any pre-1900 rubbish pits or other non-structural features would be uncovered. Any such features would be more likely to be found well outside of the assessment area, in the vicinity of the Elms Homestead west of Elms Creek. It should also be noted that 19<sup>th</sup> and 20<sup>th</sup> century farming activities – specifically ploughing and rock picking - would have had a good chance of modifying or otherwise destroying any archaeological sites present (as in the case of oven site O31/50, refer section 4.0).

All archaeological sites are protected under the provisions of the *Heritage New Zealand Pouhere Taonga Act 2014*. It is an offence under that act to modify or destroy an archaeological site or sites where avoidance of effect cannot be practiced. All of the desk based research, the site visit inspections, test pit investigations and the recent monitoring of the fibre optic cable trenching along the Inland Kaikōura Road point to there being no reason to suspect that an archaeological site or sites will or might be affected by the proposed Stage 1 earthworks, so an archaeological authority from Heritage New Zealand Pouhere Taonga does not need to first be obtained. The risk of those Stage 1 works impacting subsurface archaeological deposits has been determined to be low, therefore those

works are to proceed under the standard Accidental Discovery Protocol (ADP). A copy of this Accidental Discovery Protocol is included at the end of this assessment in Appendix A.

## 8.0 RECCOMENDATIONS

1. That the Stage 1 earthworks associated with the formation of the lifestyle block and commercial subdivisions at 69 Inland Road, Peketā, Kaikōura, as have been outlined in section 6.0 of this report, be undertaken under the standard Accidental Discovery Protocol – (ADP) refer Appendix A.
2. That prior to the commencement of earthworks associated with those Stage 1 earthworks, all contractors and subcontractors involved in ground disturbance activities are briefed on the possibility of uncovering archaeological material, and are aware of the Accidental Discovery Protocol that is to be followed should any archaeological or suspect archaeological material be uncovered.
3. That during earthworks, any cultural protocols advised by Tangata Whenua are acknowledged and provided for.

## 9.0 REFERENCES

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## 10.0 APPENDIX A – HERITAGE NEW ZEALAND ACCIDENTAL DISCOVERY PROTOCOL



HERITAGE NEW ZEALAND  
POUHERE TAONGA

### Heritage New Zealand Pouhere Taonga Archaeological Discovery Protocol

In the event that an unidentified archaeological site is located during works, the following applies;

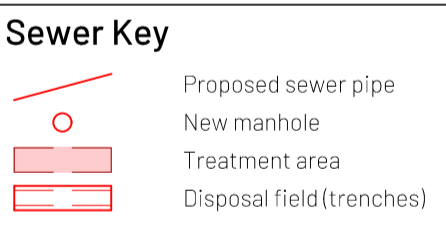
1. Work shall cease immediately at that place and within 20m around the site.
2. The contractor must shut down all machinery, secure the area, and advise the Site Manager.
3. The Site Manager shall secure the site and notify the Heritage New Zealand Regional Archaeologist. Further assessment by an archaeologist may be required.
4. If the site is of Maori origin, the Site Manager shall notify the Heritage New Zealand Regional Archaeologist and the appropriate iwi groups or kaitiaki representative of the discovery and ensure site access to enable appropriate cultural procedures and tikanga to be undertaken, as long as all statutory requirements under legislation are met (*Heritage New Zealand Pouhere Taonga Act, Protected Objects Act*).
5. If human remains (koiwi tangata) are uncovered the Site Manager shall advise the Heritage New Zealand Regional Archaeologist, NZ Police and the appropriate iwi groups or kaitiaki representative and the above process under 4 shall apply. Remains are not to be moved until such time as iwi and Heritage New Zealand have responded.
6. Works affecting the archaeological site and any human remains (koiwi tangata) shall not resume until Heritage New Zealand gives written approval for work to continue. Further assessment by an archaeologist may be required.
7. Where iwi so request, any information recorded as the result of the find such as a description of location and content, is to be provided for their records.
8. Heritage New Zealand will determine if an archaeological authority under the *Heritage New Zealand Pouhere Taonga Act 2014* is required for works to continue.

It is an offence under S87 of the *Heritage New Zealand Pouhere Taonga Act 2014* to modify or destroy an archaeological site without an authority from Heritage New Zealand irrespective of whether the works are permitted or a consent has been issued under the Resource Management Act.

## 11.0 APPENDIX B – PRELIMINARY SERVICE LAYOUT PLANS [SUBJECT TO KDC APPROVAL]

[ see overleaf]





**Preliminary  
Sewer Plan**

Scale	1:1000 @ A1
Date	13 July 2020
Design	SM
Drawn	SM
Review	CF
7182-Master Civil	
Rev.	13/7/20 Resource consent application

Rev.	Date	Amendment
A		

Sheet P1



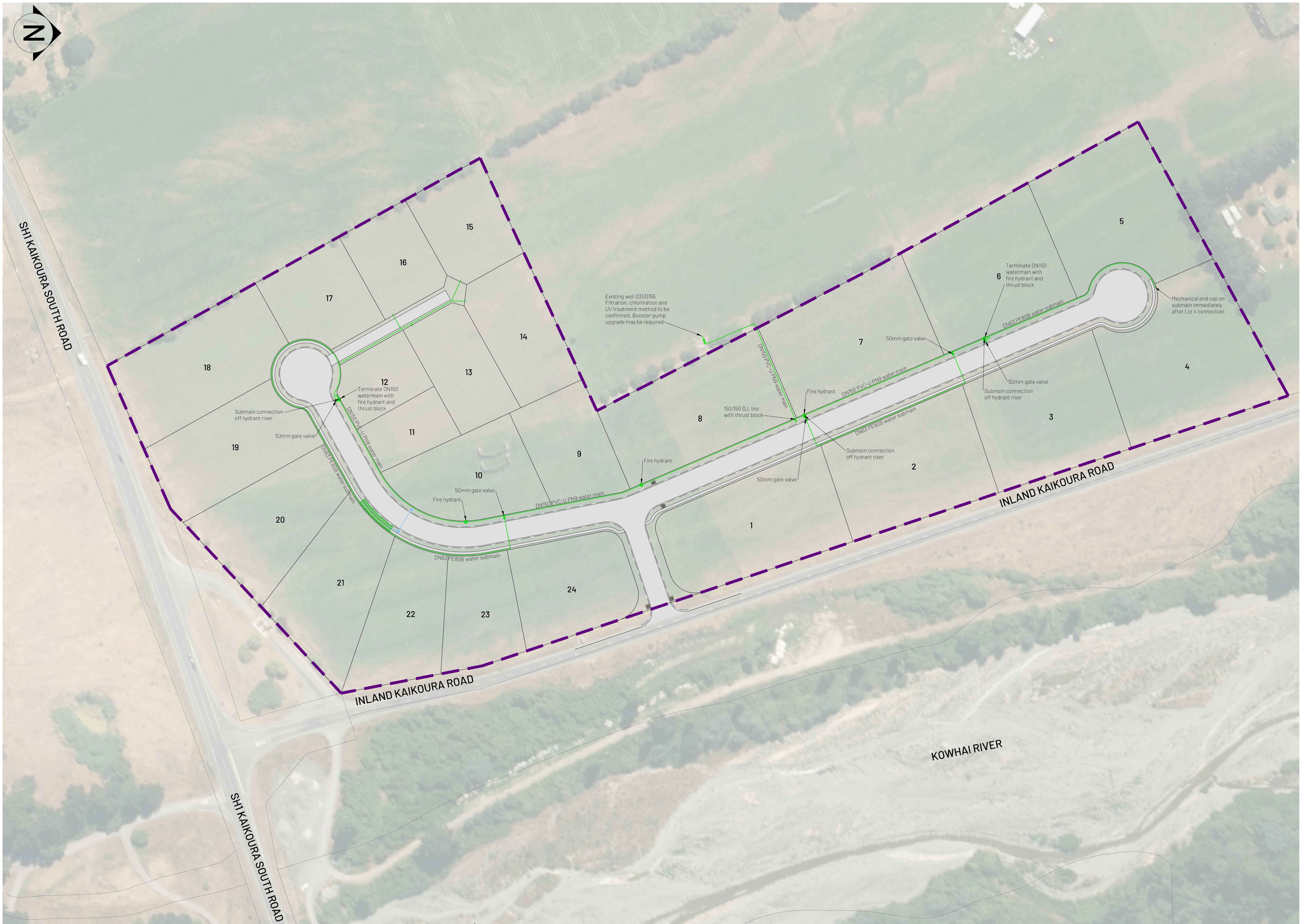
**Stormwater Key**

	Proposed pipe
	Treatment swale
	Sump
	Soakpit
	Secondary flow direction
	9.5
	10.0
	10.5

**Preliminary Stormwater Plan**

Scale	1:1000 @ A1	
Date	13 July 2020	
Design	SM	
Drawn	SM	
Review	CF	
7182-Master Civil		
Rev.	Date	Amendment
A	13/7/20	Resource consent application

Rev.	Date	Amendment
Revision	A	
Sheet	P2	



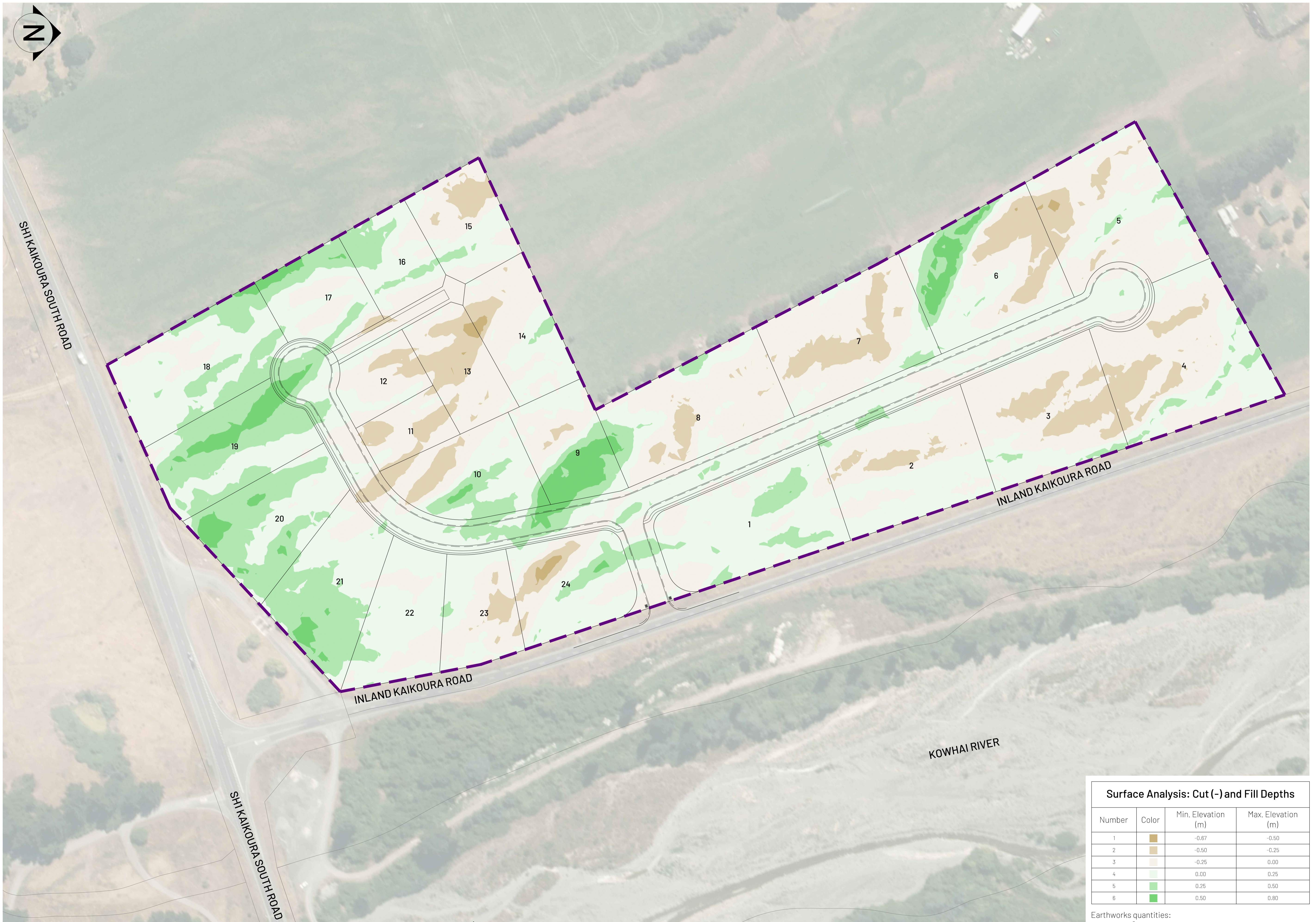
**Water Supply Key**

	Proposed water pipe
	Fire hydrant
	Valve
	Thrust block

**Preliminary Water Supply Plan**

Scale	1:1000 @ A1	
Date	13 July 2020	
Design	SM	
Drawn	SM	
Review	CF	
7182-Master Civil		
Rev.	Date	Resource consent application
A	13/7/20	

Rev.	Date	Amendment
Revision	A	
Sheet	P3	



Surface Analysis: Cut (-) and Fill Depths			
Number	Color	Min. Elevation (m)	Max. Elevation (m)
1	Dark Brown	-0.67	-0.50
2	Light Brown	-0.50	-0.25
3	Orange	-0.25	0.00
4	Light Green	0.00	0.25
5	Medium Green	0.25	0.50
6	Dark Green	0.50	0.80

Earthworks quantities:  
 Cut 7,830 m<sup>3</sup>  
 Fill 11,750 m<sup>3</sup>

Preliminary Cut and Fill Plan		
Scale	1:1000	@ A1
Date	13 July 2020	
Design	SM	
Drawn	SM	
Review	CF	
7182-Master Civil		
Rev.	Date	Amendment
A	13/7/20	Resource consent application
Revision	A	
Sheet	P4	