

IDENTIFY

CLASSIFY

RECTIFY

Preliminary site investigation

Tauriko West - Tupenga

NZ Transport Agency Waka Kotahi

THE CONTAMINATED SITE CONSULTANCY

RECORD OF REVIEW

Although this matter is not before the Environment Court, we confirm that we have read the Code of Conduct for expert witnesses as contained in section 9 of the Environment Court Practice Note 2023. We agree to comply with that Code. Our qualifications as an expert are set out below. We are satisfied that the matters which we address in this report are within our area of expertise. We have not omitted to consider material facts known to us that might alter or detract from the opinions we express.

<i>Roles</i>	<i>Person responsible</i>	<i>Position</i>	<i>Relevant experience</i>	<i>Signature</i>
Site specific record review	Karen Toulmin	Contaminated Site Consultant	9 years	s9(2)(a)
Author	Kylie Eckersley	Site Contamination Specialist CEnvP-SC	20 years	
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CERTIFICATION

This preliminary site investigation meets the requirements of the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 because it has been:

- done by a suitably qualified and experienced practitioner, and
- reported on in accordance with the current edition of Ministry for the Environment (MfE) Contaminated land management guidelines No 1 – Reporting on contaminated sites in New Zealand (Ref: MfE1), and
- certified by a suitably qualified and experienced practitioner.

As part of HAIL Environmental's internal quality assurance and quality control procedures all investigations are designed to meet MfE requirements and are signed by a SQEP that is a certified contaminated land specialist under the Environment Institute of Australia and New Zealand (EIANZ) accreditation scheme.

STATEMENT OF QUALIFICATIONS

Evidence of the qualifications and experience of the suitably qualified and experienced practitioners who have completed and certified this report are provided in the table above. Both the author and reviewer are certified site contamination specialist under the EIANZ accreditation scheme.

Brendon Love also has significant experience through various projects within land parcels within or adjacent to the designation including:

- Soil sampling, soil management and remediation action plans, and remediation and validation of numerous sites adjacent to SH29 as part of the enabling works between Cambridge Road and Redwood Lane.
- Preliminary and detailed sites investigations on land parcels within the proposed designation including the former Ferncliffe Farms site for Kainga Ora, and former orchard and pastureland for the Tauriko Property Group LP.
- Preliminary site investigations for 9 Nature Place, Barkes Corner.

CODE OF ETHICS

The [Certified Environmental Practitioner Scheme \(CEnvP\)](#) requires certified professionals to adhere to the EIANZ Code of Ethics and Professional Conduct, which centres on integrity, competent practice, and promoting environmental principles. It commits practitioners to high professional standards, incorporating Indigenous knowledge, values, and rights, ensuring sustainable solutions and ethical accountability

VERSION HISTORY

Project identification	
Client	New Zealand Transport Agency Waka Kotahi
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The document is the final Version

ABBREVIATIONS

ACM – asbestos-containing material
BBO - Bloxam Burnett & Olliver
bgl – below ground level
BoPRC – Bay of Plenty Regional Council
BTEX – Benzene, toluene, ethylbenzene, xylenes
CCA – chromated copper arsenate
DDT – Dichlorodiphenyltrichloroethane.
ΣDDT – The sum of DDT residues, including DDT and its breakdown products.
DSI – detailed site investigation
Eco-SGV – ecological soil guideline value
GNS – Geological and Nuclear Sciences
Ha - hectare
HAIL – hazardous activities and industries list
LUR – land use register
MfE – Ministry for the Environment
NZTA - New Zealand Transport Agency Waka Kotahi
NAPL – non-aqueous phase liquid
NES:CS – Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.
OCPs - organochlorine pesticides
PAH – polycyclic aromatic hydrocarbons
PFAS – per- and polyfluoroalkyl substances
PSI – preliminary site investigation
SCS – soil contaminant standards
SQEP – suitably qualified and experienced practitioner
TCC – Tauranga City Council
TPH – total petroleum hydrocarbons
UPSS – Underground petroleum storage system
WBDC – Western Bay of Plenty District Council

GLOSSARY¹

Activity factors: aspects or characteristics of a HAIL activity that relate to the potential of the activity to cause contamination and/or affect the extent, severity or nature of the contamination.

Conceptual site model: a representation of the source (contaminants), receptors (such as site users or the environment) and any exposure pathways.

HAIL activity: any one of the 53 individual activities and industries listed on the HAIL, denoted by a HAIL category letter followed by a number, for example, A2 – Chemical manufacture, formulation or bulk storage. HAIL categories H and I are also HAIL activities.

HAIL category: the broad categories denoted by a letter A to I on the HAIL, which group broadly similar HAIL activities together, for example, category G – Cemeteries and waste recycling, treatment and disposal. HAIL categories H and I are also HAIL activities.

Piece of land: means land that is, or has been, used for an activity or industry listed on the HAIL.

¹ Adapted from Ministry for the Environment. 2023. Hazardous Activities and Industries List guidance: Identifying HAIL land. Wellington: Ministry for the Environment.

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SUMMARY

This preliminary site investigation (PSI) was prepared to identify potential contamination risks within the proposed designation footprint, and the need for further investigation.

Within the designation footprint there are several properties that merit detailed investigation. The first is at Barkes Corner, where land has been used for industrial purposes (including a sawmill, Ministry of Works depot, vehicle refuelling and maintenance, engineering). Records also indicate that the Ministry of Works depot contained a tar heating plant. This may point to the presence of coal tar and localised soil contamination beneath roads and along road berms.

Potential sheep dips have also been identified on rural properties located at 241 Kaweroa Road (Lot 1002 DP616167) and 999 SH29 (Section 4 SO 475075). The former Tauriko service station also contained a workshop, located at 782 SH29 (Lot 1 & 2 DPS 4898 and soil at Tauriko Primary School (768 SH29/Part Allot 87 Te Papa PSH) may be impacted by hazardous building materials (asbestos and lead-based paint), fuel storage and waste disposal.

Other potential point sources of contamination throughout the designation include asbestos, lead and zinc associated with building fabric in former or current structures that pre-date 2000; agrichemical mixing and washout areas; fuel and chemical storage areas; bulk storage of fertiliser and waste disposal areas.

In summary, the PSI has identified 47 'pieces of land' within the designation footprint that warrant further investigation / sampling and analysis.

For properties that have been subject to the diffuse use of chemicals, such as farmland and horticultural land, contamination risks are low and can be readily managed through standard procedures.

Other matters within the designation which warrant consideration, but which do not necessarily fall within a hazardous activity or industry category are: abandoned asbestos cement pipes (mapped beneath the road at Barkes Corner); and coal tar roading materials.

In accordance with relevant guidelines for the management of contaminated land (Ref: MfE1) the following actions are recommended:

- Asbestos surveys are carried out on buildings that will be demolished to construct the project, and which were constructed prior to 2000. If survey reports that indicate asbestos containing material is identified within the exterior building fabric and it is a deteriorated condition, then soil will be investigated to determine if free fibres of asbestos are present in the building dripline. Further management requirements will be defined based on laboratory analysis results.
- Further detailed site investigation is undertaken on sites identified as highly likely to be or have formerly been used for a purpose identified on the hazardous activities or industries list (HAIL); i.e., those point sources of contamination. Investigations should be carried out in accordance with relevant guidelines for the investigations of contaminated land (Ref: MfE2).

- Identification and testing of roading material for coal tar on roads that pre-date 1980 where disturbance or removal of that roading material is required as part of the proposed highway construction activities within the designation.

1. INTRODUCTION

1.1. Investigation objectives

The objectives of this PSI are to:

- Confirm which portions of the site have, more likely than not, been used for a HAIL category included in the hazardous activities or industries list (HAIL, Ref: MfE3) and are therefore a 'piece of land'.
- Given those HAIL activities or contamination sources, determine whether the proposed activity could pose a risk to human health and/or the environment.
- If there is a significant risk, identify which sites or 'pieces of land' within a site require intrusive detailed site investigations to determine if soil quality poses a risk to human health or the environment and requires remediation or management.

1.2. HAIL site identification process

The investigation methodology complies with relevant guidelines for the identification and investigation of potentially contaminated land (MfE1, MfE3). The methodology draws upon various sources of publicly available desk top information which is augmented with site inspections where required. These multiple lines of evidence are then assessed to determine if a site, or an area within a site is considered a HAIL site and therefore a 'piece of land'.

Sometimes consideration of the lines of evidence in aggregate for individual site leaves uncertainty. In these situations, a precautionary approach is applied, and a site is listed as a 'potential' HAIL site. Examples of this are sites where former buildings and structures were identified in historical aerial images from the 1940s-90's but are no longer present in subsequent images. Based on HAIL Environmental's experience these locations can be impacted with asbestos and lead due to 'dirty demolition' practices where structures can be crushed, burned and buried. These locations are tagged as potential 'pieces of land' and require further Detailed Site Investigations with sampling and analysis results dictating further requirements.

Several factors need to be considered when determining if an activity is highly likely to pose a risk and therefore is considered a HAIL activity that warrants further investigation. Factors that help determine the level of risk an activity can pose and need consideration are:

- The scale of the activity. Small scale 'domestic' use and storage of chemicals below HSNO Act thresholds are not considered significant.
- The period of activity. A range of chemicals were used at different times for certain activities (horticultural, stock pesticide treatment, etc.) which had different properties (e.g. more persistent, toxicological risk, degradation rates, fate and transport).
- The duration of the activity. Some contaminants build up over time. Examples are the diffuse application of fertilisers to pastoral grazing land which results in the build-up of cadmium in soil.

By applying this methodology, it is expected that all significant HAIL sites and potential HAIL sites have been identified and will undergo further detailed site investigation (see Appendix A). It is noted that information may become available throughout the project planning phase that warrants further consideration and could result in the inclusion of additional sites.

1.3. Scope of work

HAIL Environmental's work comprised:

- Reviewing client-supplied information.
- Reviewing Tauranga City Council (TCC) and Western Bay of Plenty District Council (WBDC) information relating to the site, including district plans, resource consents, and property files². Generally, property files were obtained for review if historic aerial photographs indicated land use changes over time; i.e., where properties remained pastoral, horticultural or residential then these files were not requested.
- Reviewing BoPRC information relating to the site, including LUR entries, regional plans, relevant publicly available technical reports, resource consents and bore records, and historical information obtained from online sources.
- Reviewing readily available historic aerial photographs.
- Reviewing previous investigation reports and remediation action plans related to sites within the designation.
- Reviewing national soil and geological maps.
- A site walkover inspection of accessible high-risk sites³.
- Discussions with people familiar with the site, where possible.

The first section of this report provides an overview of the designation footprint, the geological and hydrogeological setting and site history.

The second section summarises the HAIL activities identified within the designation. These activities are presented in a table, which summarises the land use, and the likely contamination arising from the activity. Table 5 presents the HAIL sites in aggregate and outlines the proposed investigation and management strategies.

Individual site summaries are presented in Appendix B.

² Property files were not requested for sites with no evidence of any construction or where construction occurred after 2000. The asbestos regulations do not apply to buildings constructed after 2000.

³ Inspections were not considered necessary at sites where buildings and structures were not identified during the historical aerial review phase or where construction of a residential dwelling occurred after 2000. The asbestos regulations do not apply to buildings constructed after 2000 and the need for site inspection was discounted on this basis. Some sites could not be accessed due to difficulties in getting approval from owners. Asbestos surveys will be completed on all pre-2000 dwellings and structures prior to demolition or removal. Review of these surveys will be undertaken as part of the project DSI scope.

2. ROUTE DESCRIPTION

2.1. Site identification

The general location and layout of the Project is depicted in Figures 1 and 2. The designation boundary shown in these figures outlines the extent of the study area covered by this PSI. WSP previously undertook contaminated land investigation and identified management requirements within a section of the designation near Ōmanawa Bridge. Works on these land parcels have been consented separately are not included in the scope of this PSI.

2.2. Environmental setting

2.2.1. Soils

Reference to the Manaaki Whenua | Landcare Research S-MAP database indicates that Kopurererua Valley soils are dominated by alluvial Gley soils (Ohineangaanga and Onekopurukotae) formed from rhyolite parent material. These soils are strongly affected by waterlogging, have been chemically reduced and have a very low nitrogen leaching potential.

Otorohanga allophanic soils are also found across the designation, particularly in the southern portion in Tauriko. These soils are dominated by allophane, imogolite or ferrihydrite minerals. They are formed in fragmented material erupted from a volcano, from rhyolite parent material. They are well drained with very low vulnerability of water logging with a high-water holding capacity and a low N leaching potential.

SH29A East of Barkes Corner along S29A Anthropogenic soil is also present. These anthropogenic soils are formed by stripping and reworking natural rhyolitic material or from the deposition of refuse or spoil.

2.2.2. Geology and hydrogeology

The Kopurererua Valley is underlain by Holocene River Deposits of the Tauranga Group. These deposits are described as alluvial, gravel, sand, silt, mud and clay with local peat. It also includes modern riverbeds (Ref: GNS). These deposits will include weathered volcanic material from higher up in the catchment. Groundwater flow in these sediments is generally to the north or northeast. These sediments are described as being mostly saturated indicating good opportunities for groundwater supplies, however most wells in this unit yield low rates of groundwater flow (Ref: GNS1 CR2008-240 GW resource investigations Western BOP).

Elevated topography across the Tauriko area is underlain by light, grey, nonwelded sand to gravel textured pumice of the Te Ranga Ignimbrite. Between the Wairoa River and the central gully, moderately welded Ongatiti Ignimbrite is more widespread (Ref: Coffey). The ignimbrites are overlain by fluvial reworked volcanic sediments and volcanic ash from Younger Ash, Rotoehu Ash and Hamilton Ash. Localised peat beds may also occur in low lying areas (Ref: Aurecon).

BoPRC online maps show a number of bores within the designation, these are generally located in the central and southern portions. Bores (geotechnical) within the vicinity of Tauriko roundabout have encountered water levels at approximately 3.2 m bgl, with a bore opposite Tauriko School with a standing water level of 10.6 m bgl. Production bores on horticultural land south of the school have encountered water levels at 39 m to 53 m, while bores in the southern part of the designation near Redwood Lane and the Wairoa River have encountered shallow groundwater (in Waitaeriki Ignimbrite) at 1.5 m to 8.7 m depth. There are no bores within the northern part of the designation in the vicinity of the low lying Kopurererua Valley and wetland, nor along SH29A and at Barkes Corner.

As noted above peat may be present in low lying parts of the designation. Peat can generate methane and carbon dioxide albeit typically at very low flow rates. Saturated, the peat is unlikely to pose significant ground gas risks such as asphyxiation or explosions. Where geotechnical investigations confirm the presence of peat and dewatering is proposed, further investigations should be carried out to ensure that ground gas does not pose a risk during or following redevelopment works.

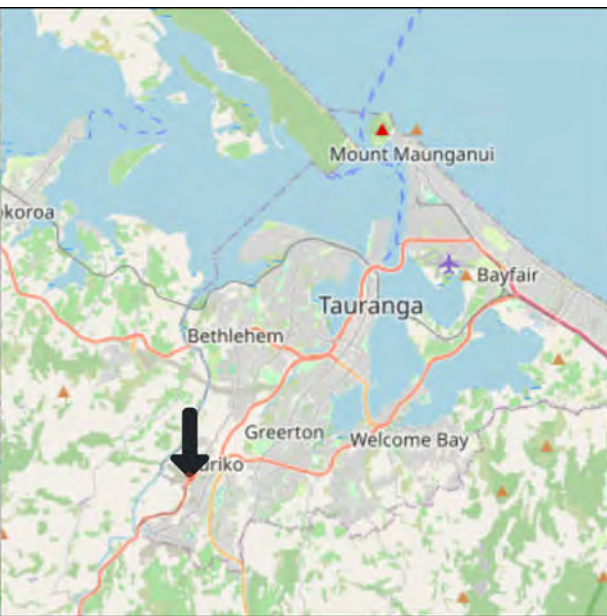
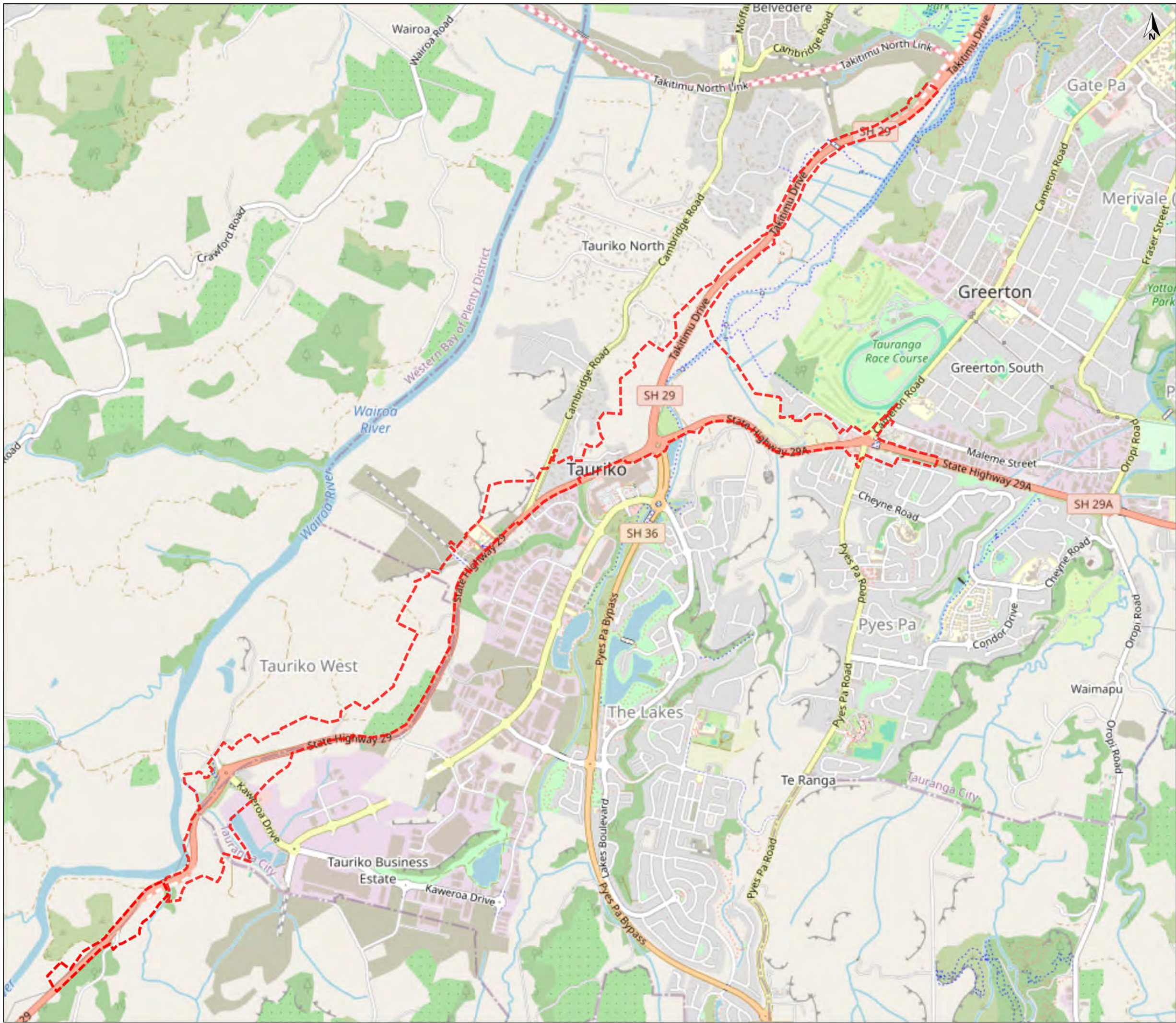
Published geological information indicates that the presence of acid sulphate soils is unlikely. The weathering of volcanic rock within the area may result in naturally elevated concentrations of trace elements such as arsenic.

2.2.3. Hydrology

The designation is located within two catchments. The southern portion is within the Wairoa River catchment and the northern the Kopurererua Stream catchment.

The Wairoa River catchment is around 210,000 ha and predominantly comprises pasture (45 %) and indigenous forest (44 %). The river is 14 km long and begins at McLaren Falls and flows northeast before discharging into the Tauranga Harbour. It is the largest freshwater tributary of the Tauranga Harbour.

The Kopurererua Catchment is some 7,400 ha. It flows north from the Mamaku Plateau entering the Tauranga Harbour at the Waikareao Estuary. The Kopurererua is 29 km long and has two tributary streams (Tautau and Nanaku) and numerous unnamed tributaries. The designation is located within the lower Kopurererua catchment which has a mix of urban, industrial and public open space. The watercourses in this area are heavily modified and the Kopurererua Stream was straightened pre-1940, disconnecting the lower river reaches from its floodplain. Its associated wetlands were drained over the years in attempts to convert the valley to pasture (Ref: www.boprc.govt.nz). The eastern boundary of the northern portion of the designation bounds the Kopurererua Stream Wetland. Small (unnamed wetlands) also overlap with the designation at the Tauriko roundabout and reference to BoPRC Bay Explorer also shows two wetlands at the southernmost end of the designation, off Belk Road.



Legend

 Designation Boundary June 2026

0 250 m 500 m
© OpenStreetMap contributors



Produced by **Datanest.earth**

Title: Site location plan

Client: BBO

Size: A3

Project:
Tauriko West
Designation

Drawn: BL

Figure No.: 1

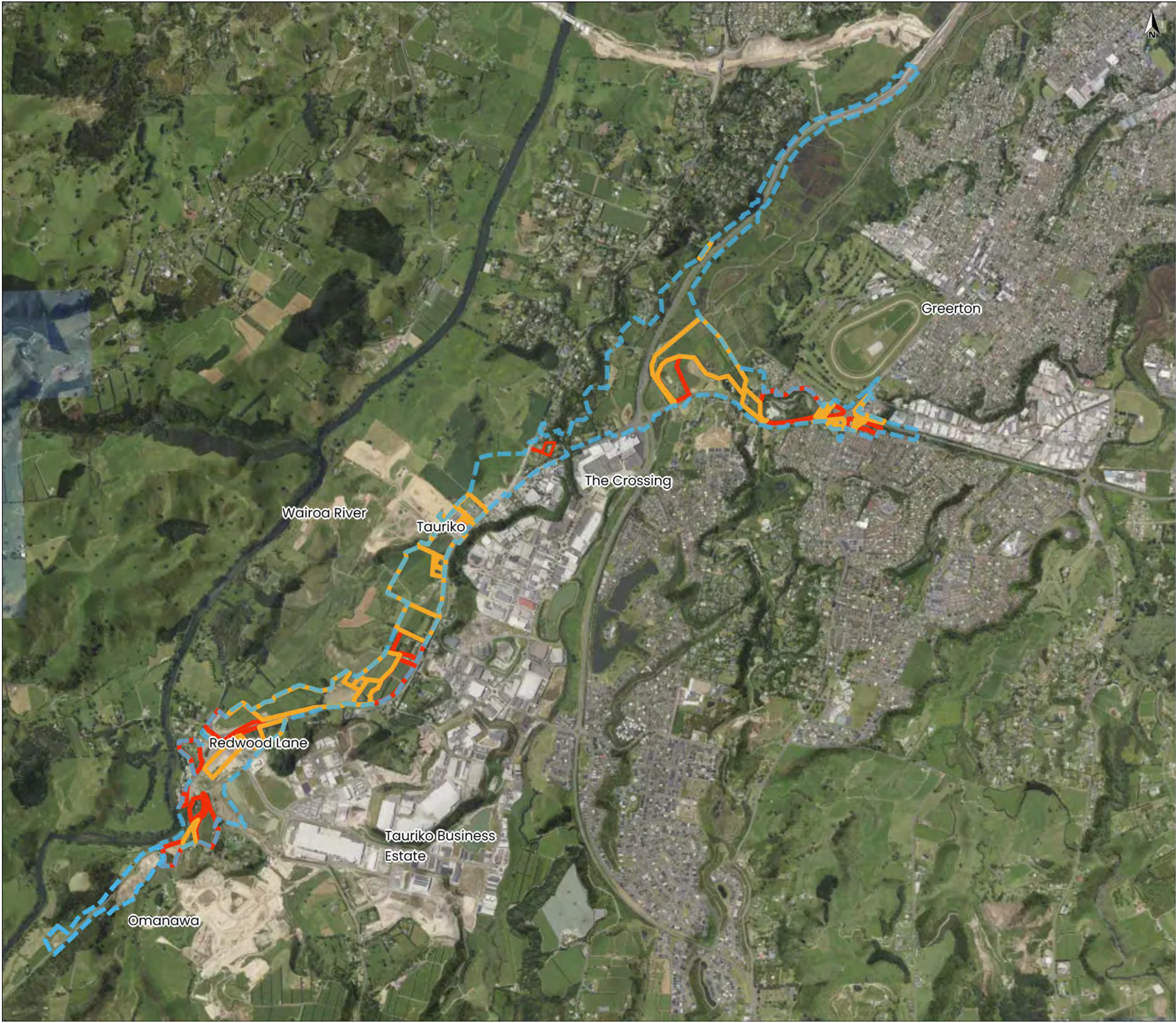
Date: 18-03-2026

Checked: BL

Proj No:
0384 Master

Scale:
1:23531

Version:
Final



Legend

- Designation Boundary June 2026
- Potential HAIL sites within designation boundary
- HAIL sites within designation

0 250 m 500 m

LINZ CC BY 4.0 © Imagery Basemap contributors



Produced by **Datanest.earth**

Title: Site layout plan

Client: BBO		Size: A3
Project: Tauriko West Designation	Drawn: KT	Figure No.: 2
	Checked: KT	
Date: 16-06-2025	Scale: 1:24010	Version: Final

3. OVERVIEW OF ROUTE CORRIDOR LAND USE HISTORY AND POTENTIAL HAIL ACTIVITIES

The following provides a chronological overview of changes in land use activities within the designation over time. Specific details on land use activities and potential sources and contaminants of concern are provided in the land use summaries Tables.

Pre- European history is not presented here. Archaeology and historical heritage matters relating to the designation are addressed by others. Tangata whenua perspective is also not included here as pre-European activities had no documented impact on soil and groundwater quality relevant to this investigation. A more detailed account of the route pre-European history is provided in the Archaeology and Historical Heritage Assessment Report prepared by CFG Heritage.

3.1. European settlement – 1860s

In the mid-1860s, confiscated land was granted to British troops to settle. However, the settlements struggled as a result of the climate, which was unsuitable for sheep, and the lack of roads and railways, which made travel and transport difficult (Ref: Te Ara).

In 1866, British troops attacked settlements surrounding Tauriko to implement the land confiscation in what was referred as the 'Bush Campaign'. Part of the track used for the Bush Campaign crossed land between SH29 and the Wairoa River and is identified as a paper road (Battalion Road). This period of settlement and development is associated with the first land uses and activities that may have generated contaminants that could still persist in soils at present day.

3.1.1. Tauranga Rimu Timber Company

Tauriko was settled in the early 20th century due to a thriving sawmilling industry. Of note was establishment of the Tauranga Rimu Timber Company near Belk Road (just outside of the designation near the Wairoa River) in 1908-1915 by the Gamman brothers. A tramline was built into the bush to haul logs from Whakamārama to the banks of the Wairoa River. From 1915 the area was then known as Tauriko (Tauranga Rimu Timber Company – acronym Tau-Ri-Co)⁴. While the main sawmill site was located near Redwood Lane and just outside the designation this commercial activity is likely to have resulted in the use of fuel for boilers and the generation of ash and other waste products that may have been disposed of on adjoining land. Reference to this significant commercial activity is therefore relevant to future management plans which include management of unexpected discoveries.

⁴ <https://debbiemccauleyauthor.worldpress.com/heritage/built-heritage/tauranga-sawmilling-company-1908-1915>

3.1.2. Tauriko School

Tauriko School was established in 1918 to serve the growing community of settlers. The school is located within the designation footprint at 768 SH29. It is addressed here as one of the first developed areas within Tauriko. Original buildings likely included the use of hazardous building materials such as asbestos and the use of lead-based paint. Historic heating sources may have also included fuel oil or coal fuelled boilers and associated bulk storage and ash disposal. School rubbish may have also been burnt in incinerators with associated ash disposal on school grounds and dental practices may have included mercury amalgam which could be present in soil due to improper dental waste disposal practices or wastewater sludge. These land use activities and potential contaminants of concern are summarised in Table 1 below.

Table 1: Potential HAIL activities at Tauriko School.

<i>HAIL category</i>	<i>Description</i>	<i>Potential contaminants of concern</i>
HAIL category E1 – <i>Asbestos products disposal including sites with buildings containing asbestos products known to be in a deteriorated condition.</i>	The school was established in 1918. Asbestos-based products were likely used on buildings (including cladding, roofing, vinyl backing, paper, pipe lagging etc). If asbestos is present in a deteriorated state, or buildings were demolished or burnt then surrounding soil may be impacted.	Asbestos
HAIL category I – <i>Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health of the environment.</i>	Like asbestos, the use of lead-based paint also has the potential to impact soil, depending on its condition, the nature of former maintenance activities, demolition or burning activities. Lead is often present as a halo around site buildings, extending out a few meters and to depths of no more than 0.5 m. Lead may also be present surrounding early timber weatherboard former school buildings. Concentrations of arsenic, cadmium, copper and zinc may also be elevated above background levels due to the leaching of other building materials such as treated timber and zinc galvanised iron. Mercury may also be present in the vicinity of former dental clinic or waste disposal system.	Lead, arsenic, cadmium, copper, zinc, mercury.
HAIL category A17 – <i>Storage tanks or drums for fuel, chemicals or liquid waste</i>	Above ground storage of fuel oil may have been associated with an historic school heating system.	Total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAH).
HAIL category G5 – <i>Waste disposal to land.</i>	Coal may have been used as fuel for the school heating system. Rubbish may have also been incinerated at the property. Ash may have been disposed on site.	Heavy elements, PAH.

3.2. Pastoral Land – Early 1900s

In the early 1900s, the area was largely converted into sheep and dairy farms. Aerial photographs confirm that through the 1940s and 1950s land use within the designation generally comprised pastoral grazing land. Maize cultivation would have occurred from time-to-time, and hay production is indicated by linear features throughout various paddocks. Over this period trees and scrub still occupied low-lying areas and elevated portions of land.

Ancillary activities included farm sheds, stockyards, holding pens and dwellings. Burn pits and offal pits are also possible as are sheep and cattle pesticide control dips.

SH29A was constructed in 1963, and SH29 in the mid-1970s. Areas of scrub were progressively cleared over the 1970s, resulting in more grazing land. With the construction of the new state highways providing easy access, pockets of grazing land were also converted for a horticultural use (refer Section 3.4).

Contaminants of concern associated with pastoral land

SEM NZ conducted a study in 2005 to establish concentrations of common contaminants in soil on various types of agricultural land within the Bay of Plenty (Ref: SEMNZ). The study found that the application of superphosphate fertiliser on pastoral grazing land in the Bay of Plenty can result in the accumulation of cadmium in soil. Cadmium is a natural trace element in phosphate rock.

In this study cadmium concentrations on pastoral land ranged from 0.1 to 1.3 mg/kg (24 samples), and on maize 0.1 mg/kg to 0.7 mg/kg. Such ranges continue to be seen in detailed site investigations completed within the Tauriko catchment. For example, topsoil in pastureland behind Tauriko School and extending from SH29 to the Wairoa River contained cadmium at 0.39 mg/kg to 1.09 mg/kg (Ref: HAIL1); and towards the southern part of the designation at Redwood, cadmium in topsoil from pasture areas ranged from 0.14 mg/kg to 0.42 mg/kg (Ref: WSP). The 95 % upper confidence limit of the mean for available cadmium data within the vicinity of the designation is 0.71 mg/kg (based on a data set of 61 samples, see Appendix C).

Published information therefore indicates that while cadmium could be present in topsoil above background (at 0.5 mg/kg, based on control site data in the SEMNZ study), concentrations will not exceed ecological soil guideline values (Eco-SGV) for 95 % level of protection of 5 mg/kg (Ref: Landcare), or the commercial soil contaminant standard of 1,300 mg/kg. Note that the rural residential standard for cadmium in the most conservative, rural residential, land use scenario is 0.8 mg/kg (Ref: MfE4).

The organochlorine pesticide (OCP) dichlorodiphenyltrichloroethane (DDT) was added to superphosphate fertilisers to control grass grub and porina moth in pastoral grazing soils. The use of DDT was restricted in the 1970s and banned in the late 1980s. The SEM study detected Σ DDT in pasture soil from below the laboratory detection limit and up to 1.18 mg/kg, with concentrations in areas used for maize production at trace levels. Σ DDT was not detected in pastures in the southern part of the designation at Redwood (Ref: WSP). Residual concentrations of Σ DDT in soil are ubiquitous (Ref: MfE5), and this is reflected in recommended national cleanfill limit of 0.7 mg/kg (Ref: WasteMINZ1). The Eco-SGV for Σ DDT at a 95 % protection level is 2.4 mg/kg (Ref: Landcare) and the SCS for the protection of human health in a commercial setting is 1,000 mg/kg so like cadmium, concentrations of Σ DDT will pose a low risk to the environment and to development workers during construction.

The use of fertiliser across farmland (other than bulk storage) does not constitute a hazardous activity or industry list activity, the exception is where the release of contamination *could* pose a risk to human health and the environment then it is captured under HAIL category I. As discussed above, however the use of fertilizer and potential accumulation of cadmium and DDT will not pose a risk to road construction workers or to the environment. HAIL category I is therefore not applicable.

In summary, former/current pasture areas **do not** comprise a HAIL activity. Data also indicates that this topsoil can be reused within the designation with no restrictions. If pasture soil requires offsite disposal however, it is unlikely to be suitable for cleanfill disposal due to cadmium (and potentially DDT) exceeding background levels.

Potential HAIL associated with farm hubs and ancillary activities

While pastoral land does not represent a HAIL activity, there are other 'ancillary' activities that have the potential to impact soil quality above applicable standards and that have the potential to fall within a HAIL category. These include:

- Dwellings and other buildings/sheds that pre-date 2000. These structures may be associated with impacted halos of elevated lead and asbestos in soil.
- Fertiliser bulk storage can result in high concentrations of cadmium in soil.
- Sheep treatments (by spray booths, spray races or dips) for fly, parasites and cattle foot baths can result in elevated concentrations of arsenic, copper and organochlorine pesticides, sometimes extending well beyond application areas due to site topography, stormwater runoff, animal movements and permeable soils. Mixing and waste disposal in the vicinity of the dips and spray races can also result in localised contamination ('hotspots').
- Commercial poultry farm activities.
- Bulk fuel or chemical storage, usually adjacent to cow sheds in above ground tanks or within implement sheds.
- Farm dumps/waste pits/burial pits. With mixed farm waste debris, sometimes includes agrichemical containers, or demolition material from old structures.
- Offal pits can contain harmful organisms, which can result in toxic gases or pose explosion risks. Sometimes these pits can also be used for disposing domestic or farm rubbish. Due their small scale such pits are difficult to identify and are therefore best managed through contingency planning.

Further detail is provided in Table 2 below.

Table 2: Potential HAIL activities associated with farm hubs and ancillary activities

<i>HAIL category</i>	<i>Description</i>	<i>Potential contaminants of concern</i>	<i>Designation examples</i>
HAIL category E1 – <i>Asbestos products disposal including sites with buildings containing asbestos products known to be in a deteriorated condition.</i>	Dwellings and other buildings that pre-date 2000. Asbestos-based products were commonly used from the 1920s to the mid-1980s when crocidolite (blue) and amosite (brown) was prohibited in 1984. Chrysotile was banned from 1999. Importing ACM was only banned in New Zealand in October 2016. Under the asbestos regulations any building constructed before 2000 is assumed to contain asbestos. If asbestos is present in a deteriorated state, or building were demolished or burnt then surrounding soil may be impacted.	Asbestos	All sites with cement fibreboard cladding buildings constructed prior to 2000. Examples include: 1095A SH29, 4A Belk Road, 956 SH29, 984 SH29, 880 SH29, 820 SH29
HAIL category I – <i>Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health of the environment.</i>	Like asbestos, the use of lead-based paint also has the potential to impact soil, depending on its condition, the nature of former maintenance activities, demolition or burning activities. timber clad buildings particularly circa 1940s-60s when lead concentrations in paint were 1%. Lead is often present as a halo around site buildings, extending out a few meters and to depths of no more than 0.5 m. Concentrations of arsenic, cadmium, copper and zinc may also be elevated above background levels due to the leaching of other building materials such as treated timber and zinc galvanised iron.	Lead, arsenic, cadmium, copper, zinc	All sites with former or current buildings constructed prior to 1980's. Examples include: 4A Belk Road, 956 SH29, 984 SH29, 880 SH29, 820 SH29
HAIL category A6 – <i>Bulk storage of fertiliser.</i>	The bulk storage of superphosphate fertiliser can result in elevated concentrations of cadmium above Eco-SGVs, and potentially commercial criteria. Typically, contaminants are elevated in the vicinity of the store and loading zone.	Cadmium	Pastoral grazing land.
HAIL category A8 – <i>Livestock dip or spray race operations.</i>	Historic sheep dip or spray races, and livestock footbaths can result in hotspots of persistent, toxic chemicals, notably organochlorine pesticides (OCPs) and arsenic. Sludge disposal areas are also potential sources of contamination. These sheep dip chemicals can extend to the groundwater table and migrate away from source zones through permeable strata and in groundwater or via surface water features. Impacted surface soils are also often present where treated animals are held in pens or nearby paddocks.	OCPs (ΣDDT, dieldrin, lindane) and arsenic.	236 Kaweroa Road (Lot 1002 DP616167) adjacent to possible dip at 999 SH29 (Section 4 SO 475075), and 820 SH29.

<i>HAIL category</i>	<i>Description</i>	<i>Potential contaminants of concern</i>	<i>Designation examples</i>
HAIL category A17 – <i>Storage tanks or drums for fuel, chemicals or liquid waste</i>	Above ground storage of diesel is common in farm hubs and localised areas of hydrocarbon impacted soil can be present. Farm chemicals may also be stored in sheds with earth floors resulting in localised impacts to surface soil.	Total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAH), heavy elements, OCPs.	1 Pyes Pa Road 7 Pyes Pa Road
HAIL category G5 – <i>Waste disposal to land.</i>	Farm dumps can include a range of rubbish including building demolition material, general farm waste (hay baleage wrap, treated timber, fencing wire, chemical containers associated with animal and herbicide treatment), offal and general refuse.	Heavy elements, asbestos, PAH, salmonella, streptococcus, tuberculosis. Toxic gases such as hydrogen sulphide, and explosion from ignition such as methane.	956 SH 29

3.3. Commercial / industrial development – 1950s

3.3.1. Barkes Corner (Intersection of Cameron Road and SH29)

The portion of the designation at Barkes Corner and incorporating sections of Nature Place, Marshall Avenue and Pyes Pa Road were developed for a commercial/industrial land use from the mid-1950s. Key activities in this area include:

- Vehicle workshop activities including fuel and chemical storage (1 and 2 Pyes Pa Road, 2 Nature Place).
- Ministry of Works depot was located at 2 Nature Place (immediately west of the Barkes Corner Roundabout) in the mid to late 1950s with road maintenance huts along the main road. There was a tar heating plant on site and slabs from the sawmill were used as fuel (Whites Aviation summary). The tar heating plant may signal the presence of coal tar within roads in the area. Roding materials with coal tar contain elevated concentrations of carcinogenic polycyclic aromatic compounds (notably benzo(a)pyrene). However, given the state highways have been reformed there appears to be a low risk of coal tar. Vehicle maintenance and associated fuel and chemical storage at the site during this time was also likely. Based on aerial photographs the depot appears to have been disestablished sometime between 1977 and 1986.
- Timber treatment, storage and waste disposal (3B Marshall Avenue and 7 and 9 Nature Place). The Cravenwood Sawmill was present on the western corner of Nature Place and Marshall Avenue from the 1950s to approximately 1990. The mill, originally owned by Tuhi Harvey of Smith Harvey Construction, was bought out by Charlie and Alf Odlin in 1962. The mill was known for pioneering the boron treatment of tawa timber producing weatherboards, flooring and tool handles. With the exception of 3B Marshall Avenue (a current residential property) the mill was located beyond the designation boundary. The 1963 aerial photograph suggests that sawdust/woodwaste from the mill may have been deposited within the topographically lower properties to the immediate west at 7 to 9 Nature Place. The mill was sold to Winstones Ltd in 1986 and later to Fletchers. The mill ceased trading in 1988 following government restrictions of indigenous logging. (Tauranga Historical Society, 'Tuhi Harvey 1908-1990', 11 December 2020). Aerial photographs also show ponds (in the 2000s) and that over 2011 to 2021, 7 and 9 Nature Place were used as a roding depot with stockpiles of asphalt millings and other unknown material. 9 Nature Place has various consents related to the acceptance of cleanfill and discharge and treatment of contaminated stormwater (RM22-0242-LC.01).
- 9 Nature Place is listed on the BoPRC LUR as Category G5 – Waste Disposal to Land, due to 'cleanfill disposal'. A PSI was undertaken at the site (Ref: HAIL3). This investigation reviewed available desk top information and confirmed further investigation into the nature and extent of contamination is required prior to any future redevelopment. Site inspection records also note the presence of stockpiles of demolition waste and fuel and bitumen storage tanks.
- 25 Nature Place. 1950s – Forrest Engineering and later Marshall Engineering (Whites Aviation summary). 1980s Marshall Heaters. A review of the property file did not contain useful information in relation to the engineering activities undertaken at the site.

- 7 Pyes Pa Road – 1980s – Market Garden and orchards, late 1990s some commercial use, including tar seal contracting yard and possible fuel storage. Land use register records also state that in 1996 Water Tech Group released toxic chemicals onto the site. The chemicals were thought to be a mixture of white spirits tributynol and several other unidentified chemicals.

HAIL activities at Barkes Corner are summarised further in Table 3.

Table 3: Potential HAIL activities at Barkes Corner.

<i>HAIL category</i>	<i>Description</i>	<i>Potential contaminants of concern</i>	<i>Designation examples</i>
HAIL category A18 – <i>Wood treatment or preservation including the commercial use of anti-sapstain chemicals during milling, or bulk storage of treated timber outside.</i>	The former mill at Barkes Corner milled and treated native timber. Treatment would therefore have been dominated by boron. Other activities at the mill may have included bulk storage and use of fuel, workshops and disposal of sawdust to ground (as fill).	Boron, petroleum hydrocarbons, landfill gas from decomposition of wood waste.	2 Nature Place
HAIL category E2 – <i>Asphalt or bitumen manufacture or bulk storage</i>	The former Ministry of Works depot at 2 Nature Place reportedly had a tar heating plant. The plant may indicate the presence of coal tar in roading material. A small bitumen storage and handling operation was also operating in the northern portion of 7 Pyes Pa Road during the late 1990s. Polycyclic aromatic hydrocarbons (PAH) are the key contaminants of concern associated with this activity and coal tar roading material may impact underlying soil and roadside berms. PAH compounds can pose risks to surface water via runoff and if elevated may mobilise to groundwater. Some PAH compounds are also carcinogenic and can bioaccumulate. Solvents (such as diesel or kerosene) and cutting fluids (such as kerosene) may also be present.	PAH, total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs).	2 Nature Place 7 Pyes Pa Road Roads between at SH29 and Cambridge Road and between Tauriko roundabout and Barkes Corner roundabout.
HAIL category F8 – <i>Transport depot or yard.</i>	Ministry of Works depot likely included fuel storage, refuelling areas and workshops.	TPH/BTEX/PAH, solvents	2 Nature Place
HAIL category F4 – <i>Motor vehicle workshop</i>	Vehicle workshops appear to have been present at around three properties in this area. Workshops are associated with fuel, solvent and waste oil storage.	PAH, TPH, VOCs, metals	1 Pyes Pa Road, 2 Pyes Pa Road, 2 Nature Place
HAIL category D5 – Engineering workshops	Engineering workshops and metal fabrication	PAH, TPH, VOCs, metal	25 Nature Place,

HAIL category G5 – <i>Waste disposal to land</i>	Uncontrolled filling has occurred at 7 and 9 Nature Place and appears to have included sawdust from the former Cravenwood Sawmill. Other, unidentified material has been stockpiled and potentially buried at the property over the 2000s.	Boron, landfill gas, PAH, heavy elements, contaminated sediment in stormwater treatment ponds.	9 Nature Place
HAIL category E1 – <i>Asbestos products disposal including sites with buildings containing asbestos products known to be in a deteriorated condition.</i>	Industrial buildings (including footprints of buildings that have now been removed) that pre-date 2000 may contain asbestos.	Asbestos	1 Pyes Pa Road, 2 Nature Place

3.4. Horticultural – 1970s

In the 1970s pockets of pastoral land in the southern portion of the designation were converted to horticultural land use, including along the western side of SH29. Land within the Kopurererua Valley and on the southern side of SH29A was also converted for horticultural use, but these areas sit outside of the designation boundary.

Typically avocado, citrus and kiwifruit were grown. Numerous investigations completed with the Bay of Plenty Region by HAIL Environmental indicates that surface soil at these horticultural sites generally contain concentrations of copper above background levels. While copper does not pose a risk to human health (it is non-limiting) it is ecotoxic in fresh and marine water habitats. Aside from copper-based formulations, other agrichemicals are not typically persistent in the environment and break down in soil within a few weeks or months. Water sources (bores or water tanks) can often be associated with hotspots of contamination due to the washing out and mixing of agrichemicals. Orchard areas and agrichemical mixing areas comprise HAIL category A10 – persistent pesticide bulk storage or use.

Kiwifruit vine support structures include the use of chromated copper arsenate (CCA)-treated timber and zinc galvanised crossbars and wires. While not a HAIL, these timber support structures result in 'micro-haloes' of CCA, with the highest concentrations present closest to the post and the upper parts of the soil profile (Ref: WRC). CCA can exceed ecological criteria, and arsenic can sometimes be present within these micro-halos (close to the post) above the commercial soil contaminant standard of 70 mg/kg.

Detailed site investigations and subsequent redevelopment sampling have shown that the excavation and stockpiling of surface soil from kiwifruit orchards (without specific, targeted mixing) can reduce concentrations of arsenic from micro-haloes to within background levels. Concentrations of copper (associated with agrichemical use) however, often remains above background levels and precludes cleanfill disposal. Specific mixing of topsoil with subsoil (if soil type permits) will likely be required to reduce copper concentrations within background levels.

Heavy elements and asbestos may also be present and elevated in surface soil near old structures.

Table 4: Potential HAIL activities on horticultural land

<i>HAIL category</i>	<i>Description</i>	<i>Potential contaminants of concern</i>	<i>Designation examples</i>
HAIL category A10 – <i>Persistent pesticide bulk storage or use including sports turfs, market gardens, orchards, glasshouses or spray sheds.</i>	Application of agrichemicals (particularly copper-based formulations) to kiwifruit, citrus and avocado orchards can result in the diffuse discharge of contaminants to ground. Mixing and washing out of machinery in the vicinity of water sources (such as bores and tanks) can also result in hotspots of agrichemicals.	Copper	800 R SH29 888 SH29 7 Pyes Pa Road
HAIL category E1 – <i>Asbestos products disposal including sites with buildings containing asbestos products known to be in a deteriorated condition.</i>	Dwellings and other buildings that pre-date 2000 may contain asbestos	Asbestos	1013 SH29 5 Pyes Pa Road 810 SH29
HAIL category I – <i>Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health of the environment.</i>	Lead is often present as a halo around site buildings that predate the 1970s, extending out a few meters and to depths of no more than 0.5 m. Asbestos may also be present from deteriorated asbestos containing material. Concentrations of arsenic, cadmium, copper and zinc may also be elevated above background levels due to the leaching of timber support structures (particularly at kiwifruit orchards) or other building materials such as zinc galvanised iron.	Lead, arsenic, cadmium, copper, zinc, asbestos.	R856 SH29 880 SH29 768 SH29

3.5. Tauriko Commercial Area – 1970s

Land adjoining the existing alignment of SH29 between 808 SH29 and Cambridge Road was progressively developed for commercial land use during the 1970s. Many of the sites in this portion of the designation were investigated as part of the SH29 Enabling Works and are undergoing further investigation and remediation in accordance with resource consent RM22-0609-DC.01.

Other sites to the west of the existing SH29 alignment and within the proposed Tauriko West Designation at R800 and R820 SH29 have also been subject to investigation and remediation, with further remediation and validation outstanding in isolated areas. These sites continue to be identified as HAIL sites and will remain so until further remediation or validation works are completed in accordance with RM24-0613-DC.01. Consideration will be given to existing investigation, remediation and validation reports in relation to the earthworks within the proposed Tauriko West Designation and where required further investigations will be undertaken to address data gaps.

Tauriko Service Station

782 SH29 Aerial images indicate that the Tauriko service station and truck stop operated from at least the mid 1970s to 2025. Land use register records document that an underground petroleum storage system (UPSS) was decommissioned and replaced in 2009 (Ref: URS). This UPSS was subsequently removed and validated in 2025 in accordance with resource consent RM22-0609-DC.01, and the service station building was converted into a depot/office for Downer as part of the Tauriko West enabling works (Ref: HAIL2). Validation results generally indicate low level impacts to soil and backfill material (groundwater was not encountered) from the former UPSS. Soil in these areas will pose a low risk to road development workers and to the environment. Soil may not however be suitable for cleanfill disposal due to trace levels of total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, xylenes (BTEX). Excavations across this property should also proceed with caution as historic pipework may remain.

To date historic workshop activities at this property have not been assessed. Further soil sampling and analysis will be required when existing buildings are removed. The wider site is subject to resource consent conditions (RM22-0609-DC.01 and RC29774) which require investigation and management of potential contaminants in accordance with the approved CSMP-RAP (Ref: HAIL5).

4. CONCEPTUAL SITE MODEL

In contaminated land practice, a 'contaminant linkage' is said to be present if a sensitive receptor could be exposed to a contaminant discharged from a source. If there are no complete contaminant linkages, the site is highly unlikely to pose a threat to health or the environment.

The potential sources of contamination, transport and exposure pathways and sensitive receptors associated with the proposed development are summarised in the following sections.

4.1. Potential sources of contamination

Based on the findings of the PSI, HAIL and potential HAIL activities within the designation can be divided into two categories:

- Diffuse use of chemicals that result in widespread and generally similar and lower concentrations of contaminants; and
- Activities relating to point source releases that have the potential to result in more significant, localised contamination / 'hotspots.'

Horticultural land is the main diffuse source of contamination within the designation. The application of agrichemicals (particularly copper-based formulations) to avocado and kiwifruit orchards can result in elevated concentrations of (primarily) copper in soil above background and ecological soil guideline values (HAIL category A10). Copper does not pose a risk to human health (it is non-limiting).

Although not a HAIL land use, the use of CCA-treated timber posts and zinc galvanised crossbars in kiwifruit orchards can also result in elevated concentrations of these contaminants in soils in the vicinity of the vine support structures such as posts and crossbars. These 'micro-halos' are present closest to the post and the upper parts of the soil profile and can exceed ecological criteria, with arsenic sometimes present above the commercial soil contaminant standard.

Detailed site investigations and subsequent redevelopment sampling in relation to kiwifruit orchards have shown that the excavation and stockpiling of surface soil (without specific, targeted mixing) can reduce concentrations of arsenic from micro-halos to within background levels. Concentrations of copper (associated with agrichemical use) however, often remains above background levels and precludes cleanfill disposal. To enable reuse of topsoil from horticultural land use areas within the designation topsoil and subsoil (if soil type permits) should be stripped, stockpiled and retested to confirm suitability for reuse or disposal. Management options for these sites will be defined based on detailed site investigation results and documented in a combined contaminated site and remediation action plan (CSMP-RAP).

While pastoral land can also contain elevated concentrations of cadmium due to the diffuse use of superphosphate fertiliser, this land use activity is not considered HAIL based on available data (refer Appendix C).

Unlike the uniform application of agrichemicals to farmland or orchards where contamination impacts are generally predictable, the bulk storage and use of hazardous substances at industrial properties, farmland and horticultural land can result 'hotspots', the extent of which depends on management/handling and storage practices and the environment (soil type) in which it occurred. These potential point sources of contamination require investigation to quantify risks and to identify specific management methods.

Within the designation, these point sources are focused at Barkes Corner where land has been used for timber treatment and waste disposal (HAIL categories A18, G5), engineering and vehicle maintenance (HAIL categories F4), and a Ministry of Works depot and tar heating plant (HAIL categories F8, E2). Vehicle maintenance activities also occurred in Tauriko at the former Tauriko service station. Potential contaminants of concern associated with these industrial activities are varied and can include heavy metals, boron, petroleum hydrocarbons and solvents.

The tar heating plant at the former Ministry of Works depot may also signal the presence of coal tar in old roading materials which has the potential to impact underlying soil and road berms. Reference to aerial photographs indicates that most of the roads within the designation have been reformed, which will reduce the risk of coal tar. Further determination of potential coal tar impacts will be undertaken in accordance with NZTA guidance (Ref: NZTA1) during the detailed design stage.

The application of chemicals (particularly arsenic and OCPs) to livestock in dips or spray races can result in elevated concentrations of these contaminants in soils (HAIL category A8). Mixing and waste disposal in the vicinity of the dips and spray races can also result in localised contamination ('hotspots'). This PSI identified former stockyards at the northern portion of Lot 1002 DP 616167 at 241 Kaweroa Road, 820 SH29 and 999 SH29, as having the potential to have been formerly subject to livestock dip or spray race operations.

Other point sources of contamination scattered throughout the designation include:

- Deteriorated building materials and the discharge of asbestos and lead-based paint to ground (HAIL categories E1 and I), including at Tauriko School.
- Farm dumps (HAIL category G5).
- Mixing and cleaning of horticultural spray equipment at orchards (HAIL category A10).
- Bulk storage of fertiliser, chemicals or fuel at farmland and Tauriko School (HAIL categories A6, A17).

4.2. Potential transport and exposure pathways

The potential pathways through which receptors may be exposed to contaminants include (but may not be limited to) the following:

- Direct contact with or ingestion of contaminated soil, groundwater or surface water.
- Inhalation of contaminated dusts. This may also occur during earthworks activities.
- Inhalation of vapours from contaminated soil, groundwater or surface water.

4.3. Potential sensitive receptors

The potential receptors that may be exposed to identified contaminants include (but may not be limited to) the following:

- Site workers, including civil and maintenance contractors.
- Neighbouring properties.
- Surface water, including surface water bodies adjacent to the site, and
- Shallow groundwater, including shallow groundwater adjacent to the site.

4.4. Summary

In summary, the PSI has identified relatively low-level diffuse sources of contamination on pastoral land and horticultural lands. These land use activities have been well studied, and available data indicates that soil disturbance can be readily managed through standard procedures. While this soil will not be suitable for cleanfill disposal, early consideration of options to reuse this soil within the designation, or to place this soil on nearby land will result in significant cost savings.

Potential point sources of or 'hotspots' of contamination are present in commercial/industrial hubs at Barkes Corner and Tauriko. Scattered hotspots of contamination may also be present across properties associated with ancillary activities such as fuel and chemical storage, deterioration of hazardous building materials etc. Potential sheep dip areas are also present in Tauriko West.

If confirmed these activities, have the potential to pose risks to redevelopment workers through vapour, inhalation and ingestion. Specific soil management, disposal and dewatering procedures may also be required. 47 'pieces of land' have been identified within the designation that warrant further investigation / sampling and analysis. These sites are presented in Table A1 and shown on Figures A1-A4 in Appendix A.

5. OTHER MATTERS

5.1. Pastureland and cadmium

While the use of fertilizer can result in the accumulation of cadmium (and to a lesser extent ΣDDT) above background levels, concentrations will not be at levels that will pose a risk to road construction workers or to the environment. Therefore, the use of fertiliser across farmland (other than bulk storage) does not constitute a hazardous activity or industry list activity.

Currently available soil quality data for pasture soils within or just beyond the designation indicates cadmium (and potentially DDT) exceed regional background levels. While this topsoil can be reused within the designation with no restrictions it cannot be disposed of outside the designation boundaries as cleanfill.

Due to the limited disposal options for contaminated soils within the region, it is recommended options for reuse of topsoil within the designation are identified or a suitable site within the designation for disposing excess topsoil or unsuitable fill is established to reduce project costs and improve sustainability.

5.2. Buried asbestos pipes

Asbestos cement pipes associated with abandoned services have been mapped in the road corridor at Barkes Corner. It is possible that other such pipework is present throughout the designation but is not identified on public mapping systems. Asbestos cement pipes will require removal by a licensed asbestos removalist. If pipework is in a deteriorated condition surrounding bedding soils will require remediation, landfill disposal (or containment in an onsite cell) and validation.

5.3. Coal tar roading materials

As noted above, the former Ministry of Works depot contained a tar heating plant. This plant suggests that coal tar may have been used in roading materials in the area. Because roading material is not considered to be soil, it is not a HAIL. Coal tar however does have the potential to impact underlying soil and road berm material.

Coal tar contains elevated concentrations of PAH compounds, which can pose a risk to road workers by direct contact, ingestion or inhalation. PAH-contaminated particles may also be entrained in runoff and be transported to water bodies (Ref: WasteMINZ2).

The presence of coal tar should be confirmed for roads that were formed before 1980, and that have not been rehabilitated and are likely to be disturbed and removed as part of the proposed highway construction works. Further determination of potential coal tar impacts will be undertaken in accordance with NZTA guidance (Ref: NZTA1) during the detailed design stage. If coal tar is confirmed, specific health and safety measures will be required for workers (including vapour and dermal mitigation), spoil will need to be managed to prevent runoff to stormwater, and material will require disposal to a Class 1 landfill.

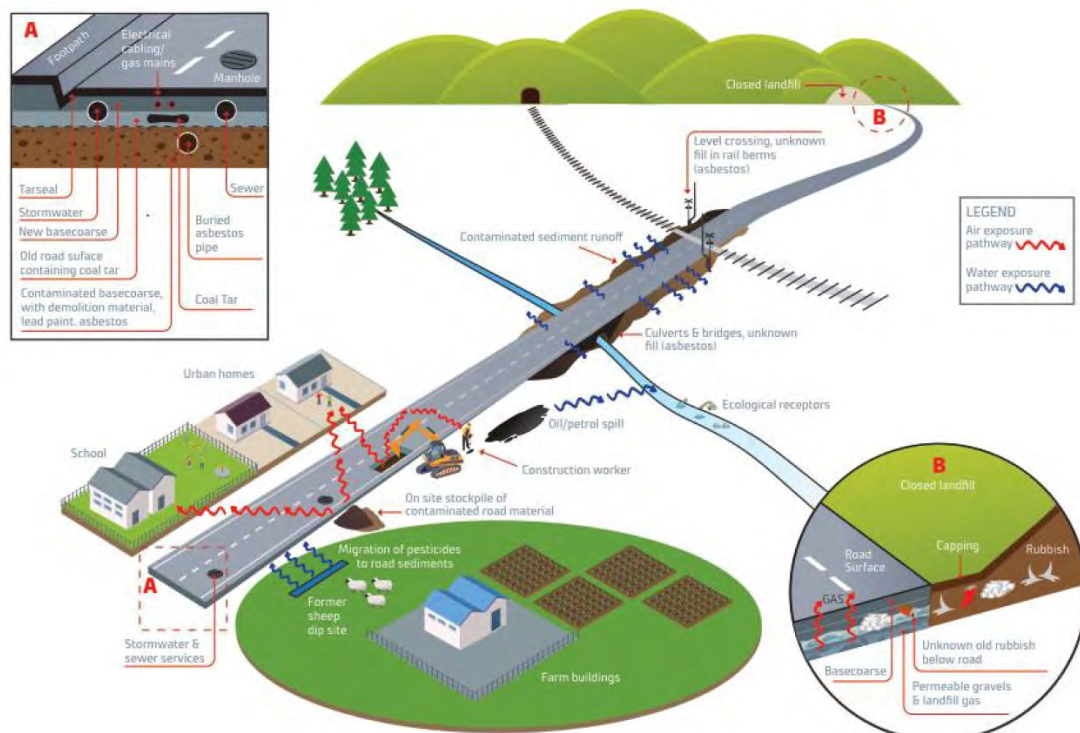


Figure 4: Generic conceptual site model for coal tar (Ref: WasteMINZ2).

5.4. Migration of contaminants from adjoining land

Contaminants associated with certain land use activities have the potential to migrate onto adjoining land. The extent of migration from a particular source area is influenced by many factors including the type of contaminant, site topography, rainfall, and ongoing site disturbance. Based on the review of desk top information two land parcels (Parcel ID 6760294 and Parcel ID 4582726) within the designation have been identified as HAIL category H which is defined as:

Any land that has been subject to the migration of hazardous substances from adjacent land in sufficient quantity that it could be a risk to human health or the environment

Further investigation of these land parcels is required to determine if migration of contaminants onto this land has occurred and if it poses a risk to human health and the environment in the context of the proposed development. These sites are included in Appendix A - Table A1.

6. PROPOSED MANAGEMENT MEASURES

The desktop research has identified 17 sites within the designation that have had former HAIL Activities that can be defined as a 'piece of land' under the National Environmental Standard for Contaminated Sites. A further 30 sites have been identified as 'potential HAIL' sites and require investigation.

In accordance with relevant guidelines for the management of contaminated land (Ref: MfE1) the following actions are proposed:

- Asbestos surveys are carried out on buildings constructed prior to 2000. Survey reports that indicate asbestos containing material is identified within the exterior building fabric in a deteriorated condition should be investigated to determine if asbestos is present in soils in the building dripline. Further management requirements will be defined based on laboratory analysis results.
- XRF screening of soils within former building footprints or building driplines constructed prior to 2000 to determine if building fabric related contamination is present.
- Test roading material for the presence of coal tar within roads that were formed before 1980, and that have not been rehabilitated and are likely to be disturbed and removed as part of the proposed highway construction works.

Further detailed site investigation (DSI) is also required on sites identified as being highly likely to be or have formerly been used for a purpose identified on the HAIL. Investigations should be carried out in accordance with relevant guidelines for the investigations of contaminated land (Ref: MfE2).

Depending on the results of the DSI further investigation, remediation and validation works may be required.

Table 5 below provides a summary of the HAIL activities identified associated contaminants of concern and the proposed investigation and management strategies to address potential contamination risks. Actual risks will be characterised following the completion of a Detailed Site Investigation (DSI) at each HAIL and potential HAIL site. Final management strategies and control measures to mitigate any human health and environmental risks identified in the DSIs will be documented in a combined Contaminated Site Management and Remediation Action Plan (CSMP-RAP).

Table 5: HAIL categories identified within designation

Land use activity (n = number of sites identified)	Contaminants	Proposed investigation strategy	Preliminary management strategies
Pastoral topsoil impact due to superphosphate application Note: Not considered HAIL A10 unless concentrations exceed most sensitive (rural residential) land use criteria. Applies to most of the designation west of Kopurererua Valley.	Cadmium Existing investigation data revealed concentrations above regional background but below rural residential land use criteria (see Appendix C)	Augment existing data by sampling topsoil on additional pastoral sites. Eight composite samples from two depths to be collected. Across topsoil profile, and discrete sample from underlying silt.	Cadmium impacted topsoil on pastoral sites is estimated at 260,000 m³ based on an average topsoil thickness of 0.2 m. Management options are: - Identify options for reuse of topsoil within design elements. - Establish a suitable site to receive excess unsuitable fill, including topsoil within the designation. Management strategy to be outlined in Contaminated Site Management Plan (CSMP)
Current and former orchards (n = 15)	Arsenic, copper, DDT, and historical pesticides	Near surface soil samples to be collected for laboratory analysis. Eight composite samples from each orchard. XRF screening of soil surrounding CCA treated timber posts and zinc impacts on kiwifruit orchards	Stockpile topsoil stripped from orchard sites for retesting to demonstrate CCA and zinc impacts have diminished. If copper concentrations remain above background, consider: - Locate fill area adjacent to site that can accept material above background - Identify options for reuse of topsoil within design elements orchards Management strategy to be outlined in Contaminated Site Management Plan (CSMP)

Land use activity (n = number of sites identified)	Contaminants	Proposed investigation strategy	Preliminary management strategies
Construction materials (existing buildings constructed prior to 2000) Note: not HAIL. TBD based on asbestos surveys.	Lead, zinc and asbestos	Undertake survey of building for asbestos containing material (ACM). If results indicate ACM is deteriorated further soil quality investigation is carried out. Use Kainga Ora conceptual site model to justify XRF screening and sampling of surface soils around building curtilages. Discrete soil samples to be collected from surface, and depth based on XRF screening. Objective is to define impact areas around each building. Earlier aerial images to be checked as well for structures that are no longer present.	Contaminated soil is likely to be limited to the drip lines of building. Excavation and disposal to landfill of contaminated soil. May require site specific remediation action plan (RAP), Asbestos Removal Control Plan, and Site Validation Report (SVR)
Engineering workshops and commercial manufacturing (n = 4)	Heavy metals, hydrocarbons, SVOCs	Install machine drilled borings at locations where storage, handling and disposal of hazardous substances has likely occurred. Consider undertaking soil gas surveys across the site to establish soil vapour concentrations in advance of soil boring locations selection. Further soil gas and groundwater investigations may be required if soil quality exceeds relevant exposure pathway specific criteria.	Remediation Action Plans to be prepared based on the DSI results. Soil contamination is likely to be isolated and require removal and disposal at an appropriately licensed disposal facility. Soil quality data may indicate that further soil vapour or groundwater quality investigations are required. Consider prioritising site investigations to confirm management requirements well in advance of project earthworks.
Fuel storage (n = 6)	Hydrocarbons, SVOCs	Install machine drilled borings at locations where storage, handling and disposal of hazardous substances has likely occurred. Consider undertaking soil gas surveys across the site to establish soil vapour concentrations in advance of soil boring locations selection. Further soil gas and groundwater investigations may be required if soil quality exceeds relevant exposure pathway specific criteria.	Remediation Action Plans to be prepared based on the DSI results. Soil contamination is likely to be isolated and require removal and disposal at an appropriately licensed disposal facility. Soil quality data may indicate that further soil vapour or groundwater quality investigations are required. Consider prioritising site investigations to confirm management requirements well in advance of project earthworks.

Land use activity (n = number of sites identified)	Contaminants	Proposed investigation strategy	Preliminary management strategies
Construction materials (former/demolished building footprints) (n = 38)	Lead, zinc and asbestos	Install test pits in locations within the former building footprints that pre-date 2000 to check for visual evidence of anthropogenic material including ACM. Number of test pits to be based on size of former building footprints. Carry out XRF screening of soils. Discrete soil samples to be collected from surface, and depth based on XRF screening.	Contaminated soil may be widespread if uncontrolled demolition, incineration or further disturbance has increased migration of contamination. Excavation and disposal to landfill of contaminated soil if soil volumes are low. Consider capping material insitu if volumes are high to avoid excessive disposal costs. May require site specific remediation action plan (RAP), Asbestos Removal Control Plan, and Site Validation Report (SVR)
Former stockyards and potential stock dip areas (n = 3)	Arsenic, DDT and other historical pesticides	XRF screening on 10m grid across survey area. XRF screening results to be used to determine sample locations for laboratory analysis. Analysis: Arsenic & OCPs	Contaminated soil may be widespread. Concentrations of contaminants may be high. Landfill disposal Prioritise DSIs to determine soil quality impacts and management strategy in advance of consents being granted.
Migration of contaminants (n = 2)	Linked to adjoining site activities	XRF screening on 10m grid across survey area. XRF screening results to be used to determine sample locations for laboratory analysis.	Landfill disposal or encapsulation within designation

LIMITATIONS

HAIL Environmental note the following limitations apply to this PSI:

- We have only reviewed readily available desktop and anecdotal information. This information may contain errors and omissions, for which we cannot be responsible: we have not validated any information unless specifically stated.
- This PSI does not seek to address risks associated with naturally occurring contamination. It is understood that consideration of potential risks due to the presence of acid sulphate soils and organic rich soils will be addressed within geotechnical investigations.
- This report is current as of 17 May 2026. Future changes to site conditions are beyond the control of HAIL Environmental.

REFERENCES

- Aurecon: Tauriko West Urban Growth Area, Proposed Plan Change. Preliminary Site Investigation. Prepared for Tauriko GP Ltd by Aurecon, 2 August 2017.
- Coffey: Preliminary Geotechnical Investigation for Proposed Earthworks Development. Prepared by Coffey for Clarkson Properties, SH29. 2 June 2009.
- HAIL1: Preliminary and Detailed Site Investigation, Ferncliffe Farm, Tauriko West. Prepared by HAIL Environmental for Harrison Grierson, 19 October 2023.
- HAIL2: Site Validation Report – Underground Petroleum Storage System Removal at Caltex Tauriko, Tauriko. Letter report prepared for Downer New Zealand Limited, 30 July 2025.
- HAIL3: Preliminary Site Investigation, 9 Nature Place, Greerton. Prepared by HAIL Environmental for Frances Holdings Limited, 10 August 2021.
- HAIL4: Stage 1 - Remediation Action Plan (Version 3), Proposed Residential Development, Tauriko West. Prepared by HAIL Environmental for Tauriko Property Group, 14 September 2025.
- HAIL5: Combined Contaminated Site Management Plan & Remediation Action Plan, Northern Access Enabling Works (SP2), SH29, Tauriko. Prepared by HAIL Environmental for Downer NZ, 21 October 2024.
- Landcare: An implementation Framework for Ecological Soil Guideline Values. Envirolink Tools Grant: C09X2206. Prepared by Jo Cavanagh and Garth Harmsworth, Landcare Research for Contaminated Land and Waste Special Interest Group and Land Monitoring Forum, July 2023.
- MfE1: Ministry for the Environment. 2021. Contaminated land management guidelines No 1: Reporting on contaminated sites in New Zealand (Revised 2021). Wellington: Ministry for the Environment.
- MfE2: Ministry for the Environment. 2021. Contaminated land management guidelines No 5: Site investigation and analysis of soils (Revised 2021). Wellington: Ministry for the Environment.
- MfE3: Ministry for the Environment. 2023. Hazardous Activities and Industries List guidance: Identifying HAIL land. Wellington: Ministry for the Environment.
- MfE4: Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health. Ministry for the Environment, Wellington. 2011.
- MfE5: Reporting on Persistent Organochlorines in New Zealand. Ministry for the Environment, Wellington, undated.
- NES:CS: Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.
- NZTA1: Whenua Parakino – Contaminated Land Guidance. Waka Kotahi New Zealand Transport Agency. May 2023.
- SEMNZ: Background Levels of Agrichemical Residues in Bay of Plenty Soils, SEM NZ Limited. Tauranga. 2005.

URS: Caltex Tauriko Service Station, Tauriko – Underground Petroleum Storage System Upgrade and Replacement. Letter report to Environment Bay of Plenty from URS New Zealand Limited.

WasteMINZ1: Technical Guidelines for Disposal to Land, Revision 3.1. Waste Management Institute New Zealand, September 2023.

WasteMINZ2: Guidelines for Assessing and Managing Coal Tar Contamination in Roadings. Waste Management Institute New Zealand, December 2023.

WSP: Redwood Enabling Works – Detailed Site Investigation. Prepared by WSP for Waka Kotahi, 9 December 2022.

Appendix A: HAIL sites identified

Table A1 - Confirmed or Potential HAIL site list requiring Detailed Site Investigation

HAIL site reference	Site address	HAIL land uses	Legal description	Title(s)
1	956 SH 29, Tauriko	A17, I, E1, G3	Lot 4 DP 512150	
2	236 Kaweroa Drive	E1	Lot 1002 DP 616167	1233031
3	9813L SH29	E1, I	Lot 2 DPS 40591	SA40A/597
4	9 Nature Place	A18, G5	Lot 2 DPS 89978	
5	800 R SH 29 (also 7800 and 7844)	A10, F7, I, E1	Lot 1 DP 310037	39555
6	6210L SH29	E1, I	Lot 2 DP 24262	
7	878D SH29	E1, I	Lot 5 DP 512150	788677
8	1013 SH29	E1, I	Lot 1 DPS 3645	SA1229/38
9	820 SH29	A17, E1, I	Lot 7 DP 512150	788679
10	6A Pyes Pa Road	I, E1	Lot 1 DPS 79061	SA63A/86
11	6B Pyes Pa Road	E1, I	Lot 2 DPS 79061	SA63A/87
12	776 SH29	I, E1	Lot 1 DP 34421	SA27D/134
13	768 SH29	A10, E1, I	Part Allot 87 Te Papa PSH	SA360/95
14	R856 SH29	A10, E1, I	Lot 1 DPS 33435	SA31B/891
15	880 SH29	A10, E1, F4, I	Lot 3 DP 512150	788675
16	810 SH29	A10, E1, I	Part Lot 1 DPS 4793	SA1488/88
17	894 SH29	A10, E1	Lot 1 DPS 82791	SA65D/74
19	7 Pyes Pa Road	A10, A17, E2	Lot 2 DPS 50055	SA42B/681
21	878A SH29	A10, A17, E1, I	Lot 2 DP 512150	788674
22	888 SH29	A10	Lot 2 DPS 87023	SA68D/533
23	15C Redwood Lane	A10, E1, G3, I	Lot 4 DP 463469	613417
24	4 Redwood Lane	A10, A17, G3	Lot 2 DPS 70631	SA56B/112
25	610 SH29	A10, E1, I, G3	Lot 5 DPS 47965	
27	1484 Cameron Road	A10, E1, I	Part Lot 1 DPS 84655	SA67A/706
28	3B Marshall Avenue	A18, E1, I	Lot 2 DPS 56196	SA52B/455
29	Parcel ID 6760294 (Adjacent to 20 Furniss Lane)	H	Parcel ID 6760294	-
30	1027 SH29	A10, E1, I	Section 2 SO 475075	692429
31	878B SH 29	E1, I	Lot 1 DP 512150	788673
33	808 SH 29	E1, I, G5	Allot 797 Parish of Te Papa	SA25B/1242
34	1/579 Cambridge Road	E1, I	Lot 2 DPS 53844	SA46D/899
35	2/579 Cambridge Road	E1, I	Lot 3 DPS 53844	SA46D/900
39	47 Silkwood Way, Tauriko, Tauranga	G3	Lot 1 DP 334849	142817
46	Barkers corner segregation strip	A18, G5	Part Allot 38 Te Papa PSH	
50	505 SH29A	E1, I	Lot 2 DPS 91058	SA72A/437
51	507 SH29A	E1, I	Lot 1 DPS 91058	SA72A/436
56	1095A SH29	A10, E1, I	Lot 9 DP 12853	

HAIL site reference	Site address	HAIL land uses	Legal description	Title(s)
57	4C Belk Road	E, I	Lot 8 DP 564534	1021476
57	4A Belk Road	A10, E1, I	Part Lot 6 DP 12853	SA4A/295
58	30 Belk Road	E1, I	Lot 4 DP 457710	593887
61	782 SH29	F7, G5, E1	Lot 1 DPS 4898	1185092
62	999 SH29	E1, I	Section 4 SO 475075	692428
63	25 Nature Place	A17, D5, E1, I	Lot 1 DPS 89978	
64	1 Pyes Pa Road	A17, I, D5, E1, F3, F4	Lot 1 DPS 22994	SA25A/284
65	2 Nature place	D5, E1, E2, G5, F4, I, G3	Part Allot 851 Te Papa PSH	
66	5 Pyes Pa Road	E1, I	Lot 1 DPS 50055	SA42B/680
67	2 Pyes Pa Road	E1, F4, I	Part Lot 1 DPS 1143	SA15C/862
68	Parcel ID 4582726 (Adjacent to 1064 SH29, Omanawa	H	Parcel ID 4582726	-



Legend

- Designation Boundary June 2026
- Potential HAIL sites within designation boundary
- HAIL sites within designation

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Title: HAIL sites		
Client: BBO		Size: A3
Project: Tauriko West Designation	Drawn: BL	Figure: A1
Date: 30-05-2026	Checked: BL	
Proj No: 0384 Master	Scale: 1:5900	Version: Final



Legend

- Designation Boundary June 2026
- Potential HAIL sites within designation boundary
- HAIL sites within designation

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Title: HAIL sites		
Client: BBO		Size: A3
Project: Tauriko West Designation	Drawn: BL	Figure: A2
Date: 30-05-2026	Checked: BL	
Proj No: 0384 Master	Scale: 1:4861	Version: Final



- Legend**
- Designation Boundary June 2026
 - Potential HAIL sites within designation boundary
 - HAIL sites within designation

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Title: HAIL sites		
Client: BBO		Size: A3
Project: Tauriko West Designation	Drawn: BL	Figure: A3
Date: 30-05-2026	Checked: BL	
Proj No: 0384 Master	Scale: 1:5042	Version: Final



Legend

- Designation Boundary June 2026
- Potential HAIL sites within designation boundary
- HAIL sites within designation

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Title: HAIL sites		
Client: BBO		Size: A3
Project: Tauriko West Designation	Drawn: BL	Figure: A4
Date: 30-05-2026	Checked: BL	
Proj No: 0384 Master	Scale: 1:8605	Version: Final



Legend

- Designation Boundary June 2026
- Potential HAIL sites within designation boundary
- HAIL sites within designation

0 50 m 100 m
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Title: HAIL sites		
Client: BBO	Size: A3	
Project: Tauriko West Designation	Drawn: BL	Figure: A5
Date: 30-05-2026	Checked: BL	
Proj No: 0384 Master	Scale: 1:4016	Version: Final



- Legend**
- Designation Boundary June 2026
 - Potential HAIL sites within designation boundary
 - HAIL sites within designation

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Title: HAIL sites		
Client: BBO		Size: A3
Project: Tauriko West Designation	Drawn: BL	Figure: A6
Date: 30-05-2026	Checked: BL	
Proj No: 0384 Master	Scale: 1:2458	Version: Final

Appendix B: Site summaries

Table B1 - Properties investigated within Preliminary Site Investigation

Summary sheet reference	Site address	HAIL land uses	Legal description	Title(s)
1	956 SH 29, Tauriko	A17, I, E1, G3	Lot 4 DP 512150	
2	236 Kaweroa Drive	E1	Lot 1002 DP 616167	1233031
3	9813L SH29	E1, I	Lot 2 DPS 40591	SA40A/597
4	9 Nature Place	A18, G5	Lot 2 DPS 89978	
5	800 R SH 29 (also 7800 and 7844)	A10, F7, I, E1	Lot 1 DP 310037	39555
6	6210L SH29	E1, I	Lot 2 DP 24262	
7	878D SH29	E1, I	Lot 5 DP 512150	788677
8	1013 SH29	E1, I	Lot 1 DPS 3645	SA1229/38
9	820 SH29	A17, E1, I	Lot 7 DP 512150	788679
10	6A Pyes Pa Road	I, E1	Lot 1 DPS 79061	SA63A/86
11	6B Pyes Pa Road	E1, I	Lot 2 DPS 79061	SA63A/87
12	776 SH29	I, E1	Lot 1 DP 34421	SA27D/134
13	768 SH29	A10, E1, I	Part Allot 87 Te Papa PSH	SA360/95
14	R856 SH29	A10, E1, I	Lot 1 DPS 33435	SA31B/891
15	880 SH29	A10, E1, F4, I	Lot 3 DP 512150	788675
16	810 SH29	A10, E1, I	Part Lot 1 DPS 4793	SA1488/88
17	894 SH29	A10, E1	Lot 1 DPS 82791	SA65D/74
18	12 Pyes Pa Road	A10, F8-but outside designation	Lot 1 DPS 85647	SA68A/50
19	7 Pyes Pa Road	A10, A17, E2	Lot 2 DPS 50055	SA42B/681
20	10 Richards Way	No HAIL activities inside designation	Lot 2 DPS 80270	SA61C/878
21	878A SH29	A10, A17, E1, I	Lot 2 DP 512150	788674
22	888 SH29	A10	Lot 2 DPS 87023	SA68D/533
23	Redwood Lane segregation strip	No HAIL activities	Lot 3 DPS 49213	997514
23	15C Redwood Lane	A10, E1, G3, I	Lot 4 DP 463469	613417
23	11R Redwood Lane	A10	Lot 6 DP 480187	1233031
23	11R Redwood Lane	A10	Lot 5 DP 480187	1233031
24	4 Redwood Lane	A10, A17, G3	Lot 2 DPS 70631	SA56B/112
25	610 SH29	A10, E1, I, G3	Lot 5 DPS 47965	
26	19 Wallace Place	A10 - but outside designation	Lot 10 DPS 58591	SA48D/17
26	21 Wallace Place	A10 - but outside designation	Lot 18 DPS 58591	SA48D/16
26	25 Wallace Place	A10 - but outside designation	Lot 16 DPS 58591	SA48D/14
27	1484 Cameron Road	A10, E1, I	Part Lot 1 DPS 84655	SA67A/706

Summary sheet reference	Site address	HAIL land uses	Legal description	Title(s)
28	3B Marshall Avenue	A18, E1, I	Lot 2 DPS 56196	SA52B/455
29	20 Furniss Lane	I Property not within designation but contaminants may migrate onto designation land	Lot 2 DP 315466	60841
30	1027 SH29	A10, E1, I	Section 2 SO 475075	692429
31	878B SH 29	E1, I	Lot 1 DP 512150	788673
32	878C SH29	No HAIL activities	Lot 6 DP 512150	788678
33	808 SH 29	E!, I, G5	Allot 797 Parish of Te Papa	SA25B/1242
34	3/579 Cambridge Road	No HAIL activities	Lot 1 DPS 53844	SA46D/898
34	1/579 Cambridge Road	E1, I	Lot 2 DPS 53844	SA46D/899
35	593 Cambridge Road	No HAIL activities	Part Lot 3 DPS 16741	110395
35	2/579 Cambridge Road	E1, I	Lot 3 DPS 53844	SA46D/900
36	587 Cambridge Road	No HAIL activities	Lot 2 DPS 16741	SA14D/1451
37	6234L SH29	No HAIL activities	Part Lot 32 DPS 71310	SA57B/508
38	Cambridge Road segregation strip	No HAIL activities	Section 14-15 SO 336781	288329
38	Cambridge Road segregation strip	No HAIL activities	Section 16 SO 336781	288330
38	Cambridge Road segregation strip	No HAIL activities	Section 55 SO 336781	288330
38	Cambridge Road segregation strip	No HAIL activities	Section 56 SO 336781	395442
38	Cambridge Road segregation strip	No HAIL activities	Section 19 SO 336781	288330
38	Cambridge Road segregation strip	No HAIL activities	Section 40 SO 336781	288328
38	Cambridge Road segregation strip	No HAIL activities	Section 17 SO 336781	288330
38	Cambridge Road segregation strip	No HAIL activities	Section 39 SO 336781	288328
38	Cambridge Road segregation strips Sec 18, 20, 24, 45, 46, 47	No HAIL activities		
39	696 SH29	No HAIL activities	Lot 2 DPS 81306	SA63D/324
39	28 Silkwood Way	No HAIL activities	Lot 33 DPS 71310	SA57B/509
39	694 SH29	No HAIL activities	Lot 1 DPS 81306	SA63D/323
39	30 Silkwood Way	No HAIL activities	Lot 27 DPS 71310	SA57B/503
39	42 Silkwood Way	No HAIL activities	Lot 28 DPS 71310	SA57B/504
39	37 Silkwood Way, Tauriko, Tauranga	No HAIL activities	Lot 30 DPS 71310	SA57B/506
39	44 Silkwood Way, Tauriko, Tauranga	No HAIL activities	Lot 29 DPS 71310	SA57B/505

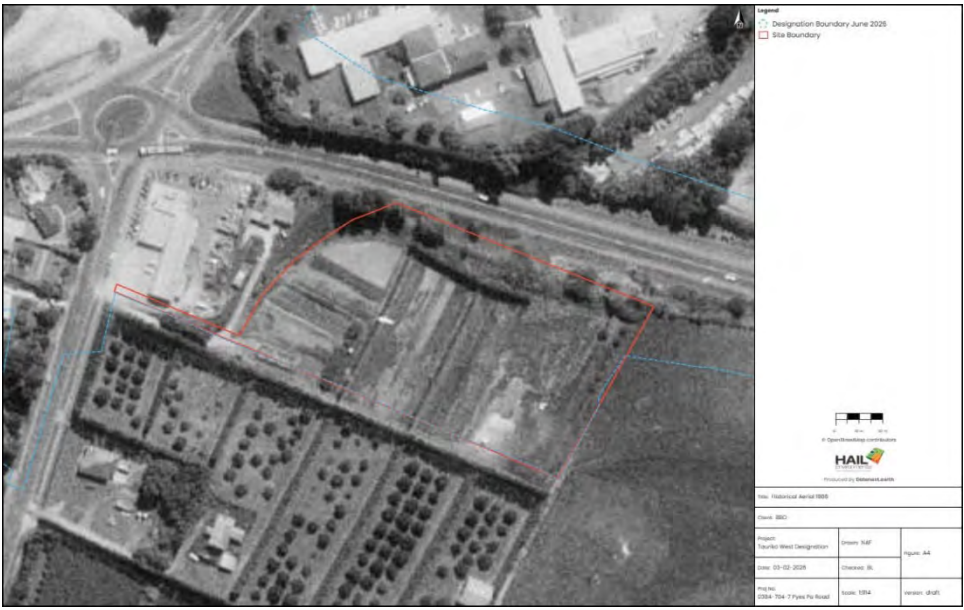
Summary sheet reference	Site address	HAIL land uses	Legal description	Title(s)
39	48 Silkwood Way, Tauriko, Tauranga	No HAIL activities	Lot 4 DP 334849	142820
39	53 Silkwood Way, Tauriko, Tauranga	No HAIL activities	Lot 2 DP 334849	142818
39	54 Silkwood Way, Tauriko, Tauranga	No HAIL activities	Lot 3 DP 334849	142819
39	8 Oakridge Place	No HAIL activities	Lot 16 DPS 71310	SA57B/492
39	47 Silkwood Way, Tauriko, Tauranga	G3	Lot 1 DP 334849	142817
40	491 Cambridge Road	A10- but outside designation	Lot 2 DPS 60348	SA49B/296
41	9 Rosewood Lane	No HAIL activities	Lot 7 DPS 85479	SA67C/887
41	7 Rosewood Lane	No HAIL activities	Lot 6 DPS 85479	SA67C/886
41	5 Rosewood Lane	No HAIL activities	Lot 5 DPS 85479	SA67C/885
42	598L Westridge Drive	No HAIL activities	Pt Lot 16 DPS 53732	SA48D/52
43	580 SH29	No HAIL activities	Lot 6 DPS 47965	SA42D/235
44	3 Nature Place	No HAIL activities	Lot 2 DPS 84323	SA66D/834
45	5 Nature Place	No HAIL activities	Lot 1 DPS 84323	SA66D/833
46	Barkes Corner segregation strips	No HAIL activities	Lot 100 DPS 80288	SA64C/123
46	Barkes Corner segregation strips	No HAIL activities	Section 1 SO 61551	
46	Barkers corner segregation strip	A18, G5	Part Allot 38 Te Papa PSH	
47	Racecourse	No HAIL activities	Part Allot 25 Te Papa PSH	624214
48	8 Pyes Pa Road	No HAIL activities	Lot 1 DPS 11914	SA8B/1186
49	40 Elderton Avenue	A10- but outside designation	Lot 2 DP 524142	835590
50	511 SH29A	E1, I - but outside designation	Lot 1 DPS 7725	SA1C/824
50	505 SH29A	E1, I	Lot 2 DPS 91058	SA72A/437
51	507 SH29A	E1, I	Lot 1 DPS 91058	SA72A/436
52	563 Cambridge Road	No HAIL activities	Lot 25 DPS 71310	SA57B/501
53	140 Marshall Avenue	No HAIL activities	Lot 33 DPS 69346	SA55D/30
54	764 SH29	A7, E1 - but outside designation	Part Allot 86 Te Papa PSH	SA476/196
55	7 Omanawa Road	No HAIL activities	Lot 1 DPS 287	SA1026/268
56	1095A SH29	A10, E1, I	Lot 9 DP 12853	
57	4C Belk Road	E, I	Lot 8 DP 564534	1021476
57	4A Belk Road	A10, E1, I	Part Lot 6 DP 12853	SA4A/295
58	30 Belk Road	E1, I	Lot 4 DP 457710	593887
60	8 Dumfries Place, Pyes Pa, Tauranga	A10- Not HAIL	Lot 32 DP 372334	292658

Summary sheet reference	Site address	HAIL land uses	Legal description	Title(s)
60	6 Dumfries Place, Pyes Pa, Tauranga	A10- Not HAIL	Lot 33 DP 372334	292659, 1160965 Lease
60	4 Dumfries Place, Pyes Pa, Tauranga	A10- Not HAIL	Lot 34 DP 372334	292660, 1157605 Lease
60	2 Dumfries Place, Pyes Pa, Tauranga	A10- Not HAIL	Lot 35 DP 372334	292661
60	35 Galloway Crescent, Pyes Pa, Tauranga	A10- Not HAIL	Lot 36 DP 372334	292662
60	37 Galloway Crescent, Pyes Pa, Tauranga	A10- Not HAIL	Lot 37 DP 372334	292663, 855161 Lease
60	39 Galloway Crescent, Pyes Pa, Tauranga	A10- Not HAIL	Lot 38 DP 387249	349222
60	41 Galloway Crescent, Pyes Pa, Tauranga	A10- Not HAIL	Lot 39 DP 387249	349223
60	43 Galloway Crescent, Pyes Pa, Tauranga	A10- Not HAIL	Lot 40 DP 387249	349224
60	84 Fairfax Crescent, Pyes Pa, Tauranga	A10- Not HAIL	Lot 41 DP 387249	349225
60	82 Fairfax Crescent, Pyes Pa, Tauranga	A10- Not HAIL	Lot 42 DP 387249	349226
60	80 Fairfax Crescent, Pyes Pa, Tauranga	A10- Not HAIL	Lot 43 DP 402843	409491
60	78 Fairfax Crescent, Pyes Pa, Tauranga	A10- Not HAIL	Lot 44 DP 402843	409492
61	782 SH29	F7, G5, E1	Lot 1 DPS 4898	1185092
62	999 SH29	E1, I	Section 4 SO 475075	692428
63	25 Nature Place	A17, D5, E1, I	Lot 1 DPS 89978	
64	1 Pyes Pa Road	A17, I, D5, E1, F3, F4	Lot 1 DPS 22994	SA25A/284
65	2 Nature place	D5, E1, E2, G5, F4, I, G3	Part Allot 851 Te Papa PSH	
66	5 Pyes Pa Road	E1, I	Lot 1 DPS 50055	SA42B/680
67	2 Pyes Pa Road	E1, F4, I	Part Lot 1 DPS 1143	SA15C/862
68	1064 SH29, Omanawa	A17, E1, F8, G3, I Property not within designation but land use extends into designation	Lot 1 DPS 7687	SA1B/971
69	1232 SH29, Omanawa	No HAIL activities	Section 2 SO 449836	582336

Address	7 Pyes Pa Road
Site reference	19
Legal Description	Lot 2 DPS 50055
Owner	s9(2)(a)
Site area (ha)	0.365
Current land use	Residential / roadside reserve
Certificate of Title	SA42B/681
Property file summary	Not requested
Consents	No resource consents
HAIL ID	LUR – TGA - 00340
HAIL land uses	A10, A17, E2
Previous land uses	 1950 - Pastoral  1963 - No change



1977 - No change



1986 – Entire site is market garden



1992 – Entire site is market garden and orchard



2003 - Market garden removed. Dwellings in south of site, outside designation. Truck parking, gravel pit in north of site, within designation.

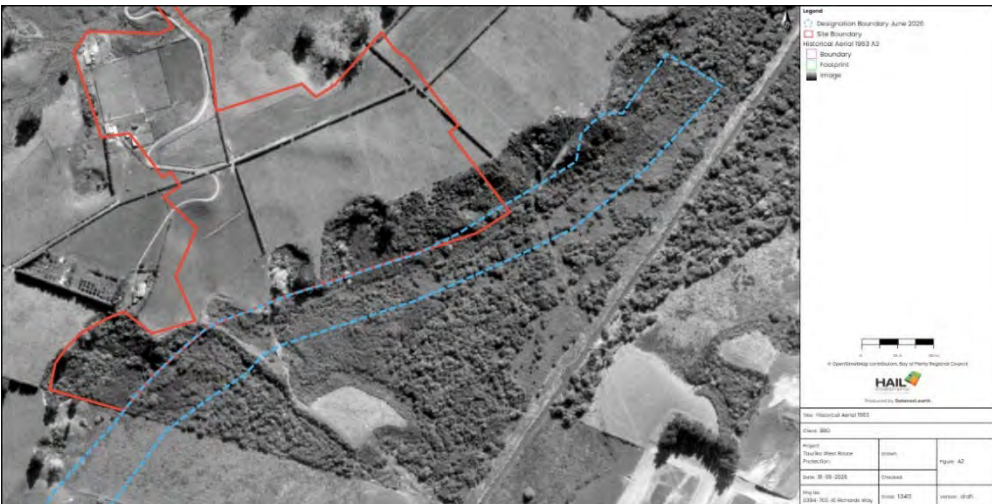


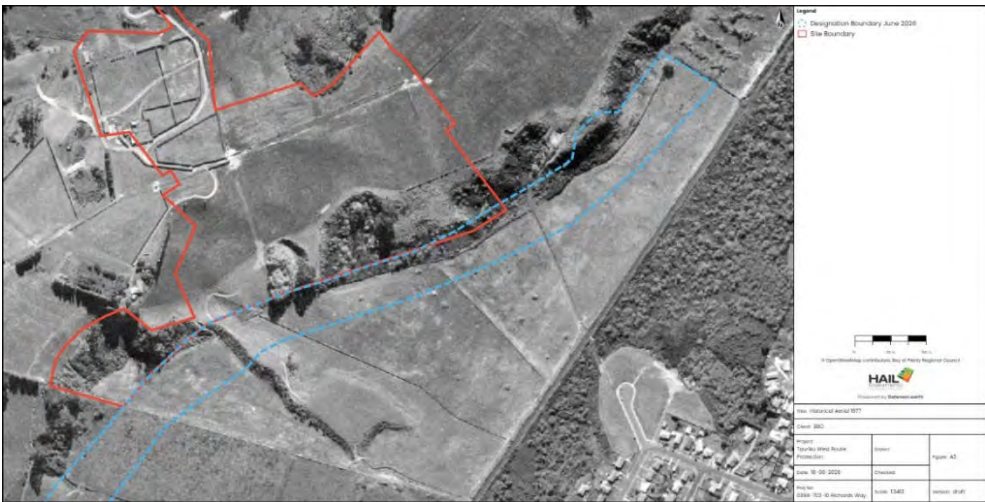
2011 – No change



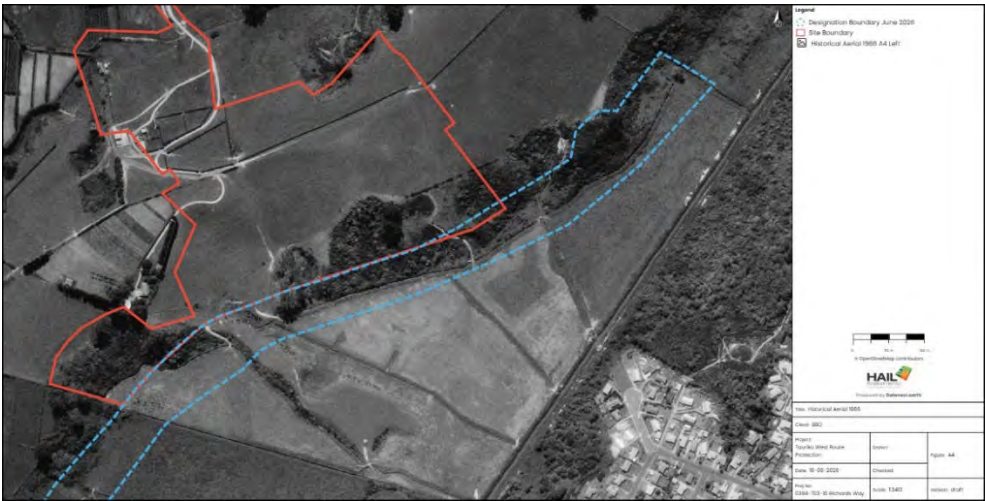
2017 – No change

	 2025 – No change	
Previous investigations	Geotechnical- Spiers and associates, 2005 Preliminary Contaminated Site Investigation, Lysaght Consultants Limited, 2011. Lysaght reported fuel was stored at the site, but bitumen was never mixed on site. Site sampling reported mild hydrocarbons present and soil metals within background levels for volcanic soils, but sampling was not completed beneath the depot site, which was previously orchard, historically filled with material from the nature place development, and covered with tar seal.	
Site inspection	Yes – in conjunction with Geotechnical investigation	
Photos		Buried waste discovered during investigation at location TP1054.
Adjoining land use	Residential	
Summary of potential HAIL land use(s)	Market garden in the 1980s. Residential from the 2000s, with an aggregate facility in the north, understood to have an asphalt plant for a time, operated by Tauranga Tar Sealing. Potential for hydrocarbons beneath the depot site and pesticide impacts. A March 2026 limited geotechnical investigation by BECA and Aurecon focused on the northeastern portion of the site (market garden), overseen by HAIL Environmental, identified generally background-level heavy metal exceedances across the site. However, a localized shallow hotspot at CPT1046 showed elevated lead (360 mg/kg) and copper (165 mg/kg) above relevant criteria. Further investigation is recommended. In addition, during advancement of TP1054 buried waste was uncovered, HAIL Environmental has collected soil and bulk samples for asbestos analysis and results showed no presence. Further investigations are recommended.	

Address	10 Richards Way
Sie reference	20
Legal Description	Lot 2 DPS 80270
Owner	Tauranga City Council
Site area (ha)	41.6
Current land use	Pastoral, and part of TNL Stage 2
Certificate of Title	SA61C/878
Property file summary	Not requested
Consents	No resource consents
HAIL ID	LUR – TGA - 00878
HAIL land uses	No potential HAIL activities were identified within designation.
Previous land uses	 1950 – Whole site is pastoral. Only a very narrow strip along SH29 inside designation.  1963 – Buildings in the northwest, outside designation.



1977 – No change



1986 – No change



1992 – Some earthworks for a track inside designation.

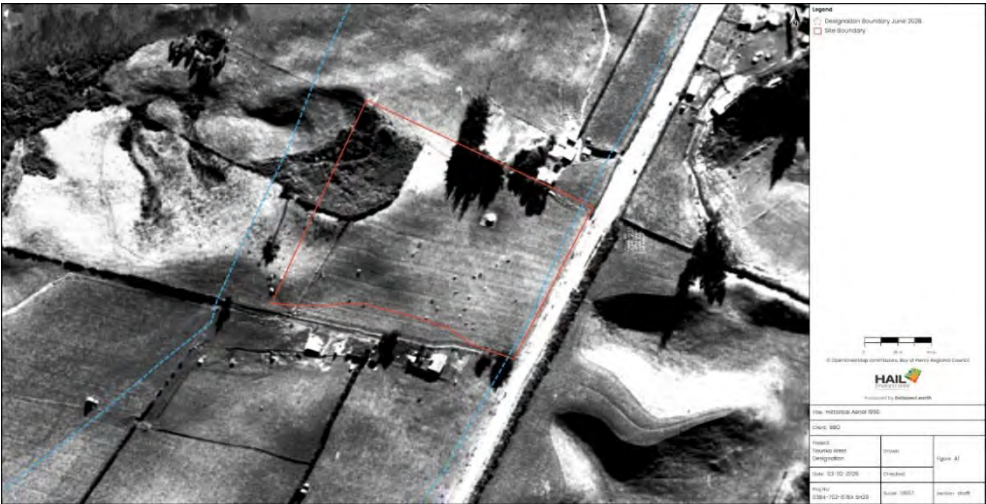


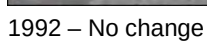
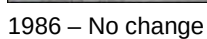
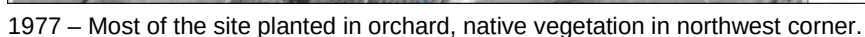
2011 – Buildings in the north removed.



2025 – Cattle yards in the centre of site, earthworks in the north, and storage ponds in the north and south, but all outside the designation which remains vegetation.

Previous investigations	Northern extent of the parcel was investigated for the TNL roadway, reporting presence of asbestos. This area was outside the designation.
Site inspection	Not inspected.
Summary of potential HAIL land use(s)	No potential HAIL activities were identified within designation.

Address	878A SH 29
Site reference	21
Legal Description	Lot 2 DP 512150
Owner	s9(2)(a)
Site area (ha)	2.54
Current land use	Residential with some aggregate storage
Certificate of Title	788674
Property file summary	Not requested
Consents	No resource consents
HAIL ID	LUR – WBP - 02389
HAIL land uses	A10, A17, E1, I
Previous land uses	 1950 - Pastoral  1963 – No change





2003 - Dwelling in north, orchard still covers remainder of site.



2011 - Orchard cleared in the east.



2017 - No change

	 2025 – Gravel stockpiles and earthworks in the east.	
Previous investigations	None undertaken	
Site inspection	Yes	
Adjoining land use	Rural residences	
Site photos	 Built in 2003, plaster cladding.	 Stockpile of millings of the road and 'cleanfill' for recycling.
Summary of potential HAIL land use(s)	Orchard since potentially 1970s. History of burn piles in east, stockpiling of road millings and 'cleanfill', potential fuel storage. Potential ACM and lead impacts unlikely, recent buildings.	

Address	888 SH 29
Site reference	22
Legal Description	Lot 2 DPS 87023
Owner	s9(2)(a)
Site area (ha)	3.91
Current land use	Orchard
Certificate of Title	SA68D/533
Property file summary	Not requested
Consents	RM17-0777 WT.01 Take groundwater for irrigation and frost protection of a Kiwifruit Orchard. Expires August 2028.
HAIL ID	LUR-WBP-02390
HAIL land uses	A10
Previous land uses	 1950 – Pastoral. Two water tanks are present in the northeast of the site.  1963 – A small shed has replaced the two water tanks.





2003- Shed in the northwest has been removed, a new small shed is present on the western boundary

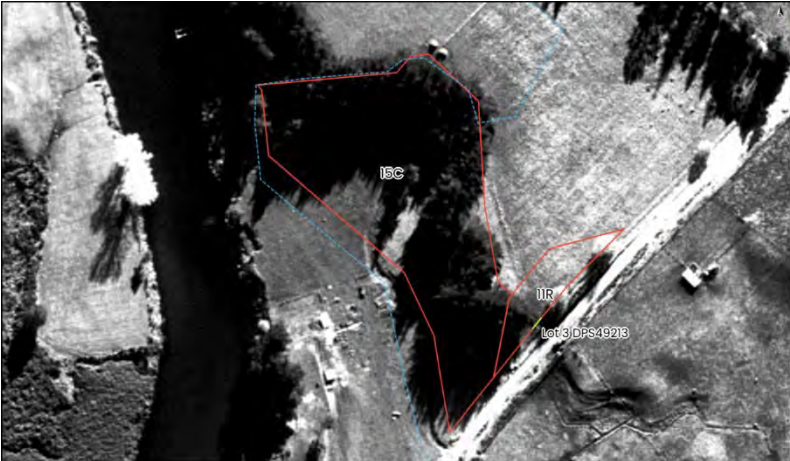


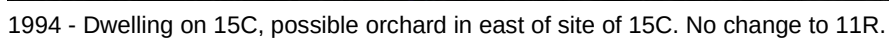
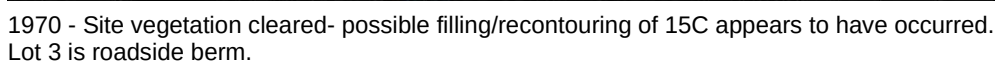
2011 - New small shed on western boundary. Earth worked parking area in northeast corner.



2017 – No change

	 2025 – No change
Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Orchard since 1970s, potential for persistent pesticide contamination.

Address	15C and 11R Redwood Lane, and segregation strip Lot 3 DPS 49213
Site reference	23
Legal Description	Lot 4 DP 463469, Lots 5 and 6 DP 480187, Lot 3 DPS 49213
Owner	s9(2)(a)
Site area (ha)	1.55, 0.4
Current land use	Orchard and rural residential property, 11R and Lot 3 no longer present, earth worked as part of SH29 Enabling Works project.
Certificate of Title	613417, 670626, 9979514
Property file summary	Not requested
Consents	RM22-0570-DC.03 Allows the permanent discharge of stormwater runoff from State Highway 29 to the unnamed tributary of the Wairoa River and to land where it may enter the unnamed tributary of the Wairoa River. Expires 2058.
HAIL ID	LUR - WBP - 02395
HAIL land uses	A10, E1, G3, I
Previous land uses	 1950 – Pastoral with thick vegetation.  1963 – No change





2011 - Orchard surrounds dwelling in all aspects except for in the west.



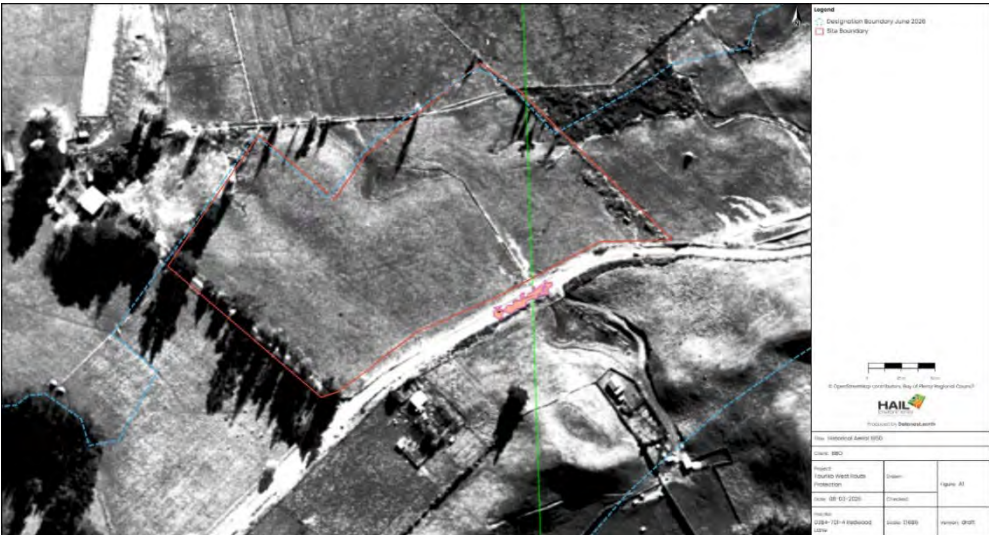
2017 - Orchard has been removed on 15C, small water storage dam erected in the north.



2025 – Rubbish, filling in SE corner of 15C. The orchard has been removed from 11R, and 11R and the segregation strip have been earth worked as part of the SH29 Enabling Works project.

Previous investigations	Aurecon reported evidence of filling, rubbish and/or vegetation pile/burn pit in SE corner. WSP reported stockpiles of concrete, woodchips, soil and untreated and treated timber during site visit. DSI completed for enabling works in 2023, reported surface and subsurface samples from the southwest corner of the site above background, but within commercial /industrial SCS (Ref: WSP2). No asbestos was identified.
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Site inspection	Not inspected
Summary of potential HAIL land use(s)	House at 15C was erected by 1990, orchard from 1990s through to 2017. Potential for filling, ACM and lead impacts around current buildings. 11R and Lot 3 segregation strip has already been developed as part of SH29 enabling works but may have been subject to persistent pesticides from orcharding.

Address	4 Redwood Lane, Tauriko, Tauranga
Site reference	24
Legal Description	Lot 2 DPS 70631
Owner	s9(2)(a)
Site area (ha)	4.36
Current land use	Pastoral, site works office
Certificate of Title	SA56B/112
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	A10, A17, G3
Previous land uses	 1950 - Pastoral  1963 – No change





2003 - Orchard has been removed, converted to pasture. A shed and a dwelling are located near the western boundary.

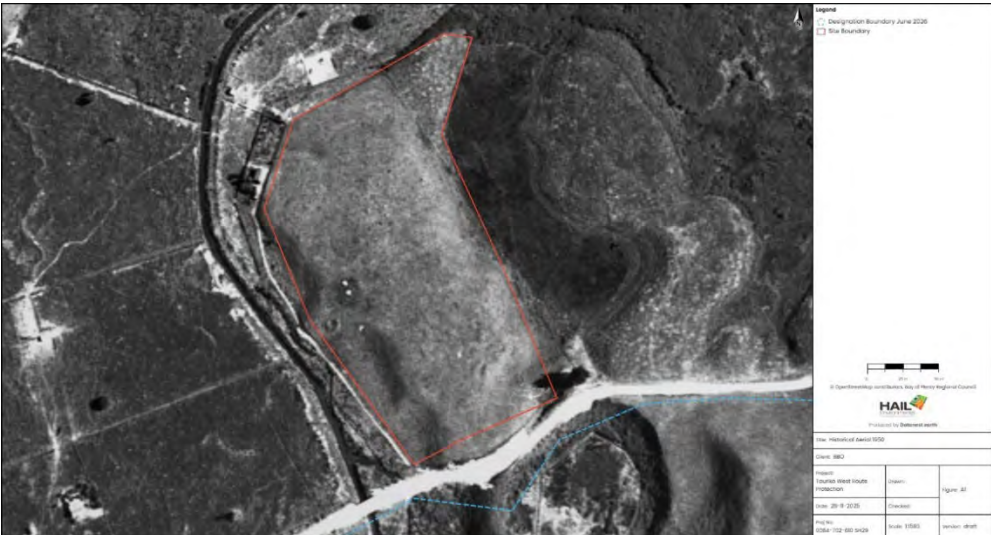


2011 – No change



2017 – No change

	 2025 - Earthworks in south of site associated with the SH29 Enabling Works project. Shed remains but dwelling removed. New sheds erected in north of site along with parking and gravel sealed ground surface.
Previous investigations	Aurecon reported stock/cattle yards during 2017 site visit, and possible storage of fuels (Ref: Aurecon). The Redwood DSI completed by WSP in 2023 reported surface and subsurface samples along the southern boundary above background, but within commercial /industrial SCS (Ref: WSP2).
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Orchard in the 1970s, before being returned to pasture in 2000s. Possible waste pit in north-east corner.

Address	610 SH29
Site reference	25
Legal Description	Lot 5 DPS 47965
Owner	s9(2)(a)
Site area (ha)	3.3954
Current land use	Rural residential and pastoral grazing
Certificate of Title	SA42D/234
Property file summary	Not requested
Consents	No resource consents
HAIL ID	LUR – TGA - 00754
HAIL land uses	A10, E1, I, G3
Previous land uses	 1950 - Pastoral  1963 – No change



1977- Earthwork/excavation in south of site, potentially a sand pumice pit, or silage.



1992 – No change



2003 - Orchard in central north of site and dwelling in the south. Pit has been removed, likely levelled or filled. Route K under construction to the west.



2011 – No change

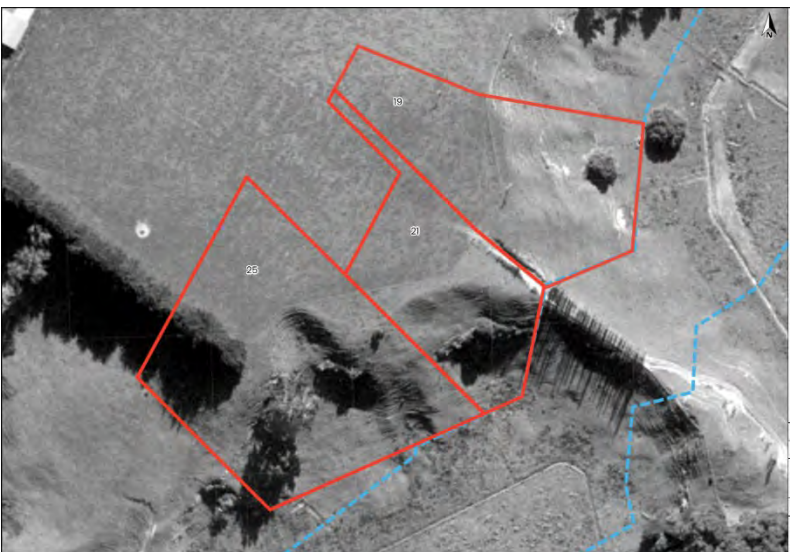


2017 – No change



2025 - Most of the orchard has been removed and a horse arena constructed in the southern portion of the orchard.

Previous investigations	None undertaken	
Site inspection	Yes. Residential dwelling is brick. Painted galvanized iron garage. Site used as residence and for horse grazing and training. Part of the citrus orchard has been removed to build an arena. The resident stated that the dwelling on the neighboring property was a P-lab and had been demolished recently.	
Site photos		
	Residential dwelling	Horse handling area
Summary of potential HAIL land use(s)	Orchard and potential ACM and lead impacts. Potential filling of former pit in south of site.	

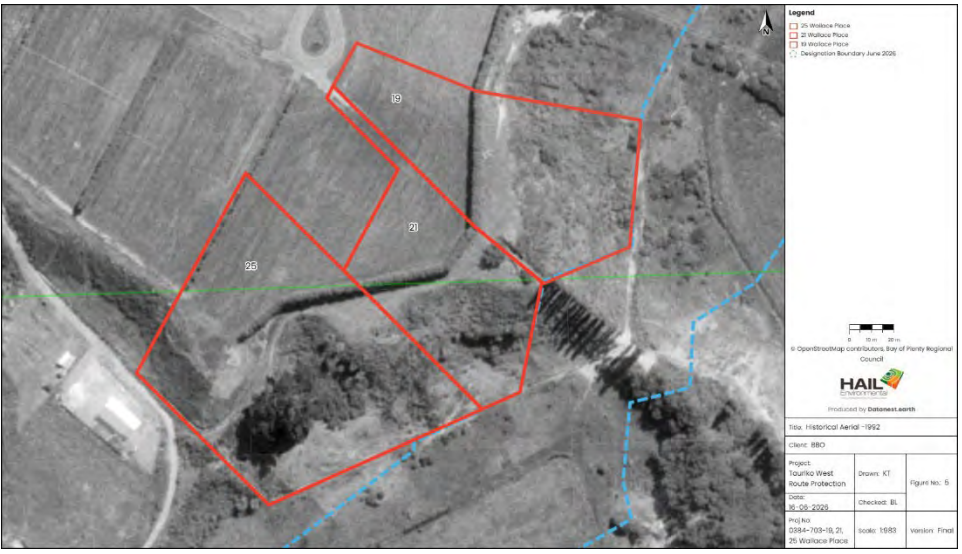
Address	19, 21, and 25 Wallace Place, Tauriko, Tauranga
Site reference	26
Legal Description	Lot 10 DPS 58591, Lot 18 DPS 58591, Lot 16 DPS 58591
Owner	s9(2)(a)
Site area (ha)	0.76, 0.55, 1.1
Current land use	Residential
Certificate of Title	SA48D/17, SA48D/16, SA48D/14
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	A10
Previous land uses	 1950 – Pastoral grazing  1963 – No change



1970 - Cropping / market garden in north of each site, rest of site pastoral.



1986 – Orchard in the north of each site. Rest of the site pastoral, including the area within the designation.



1992 - Orchard appears to have been removed, reverted to pasture.

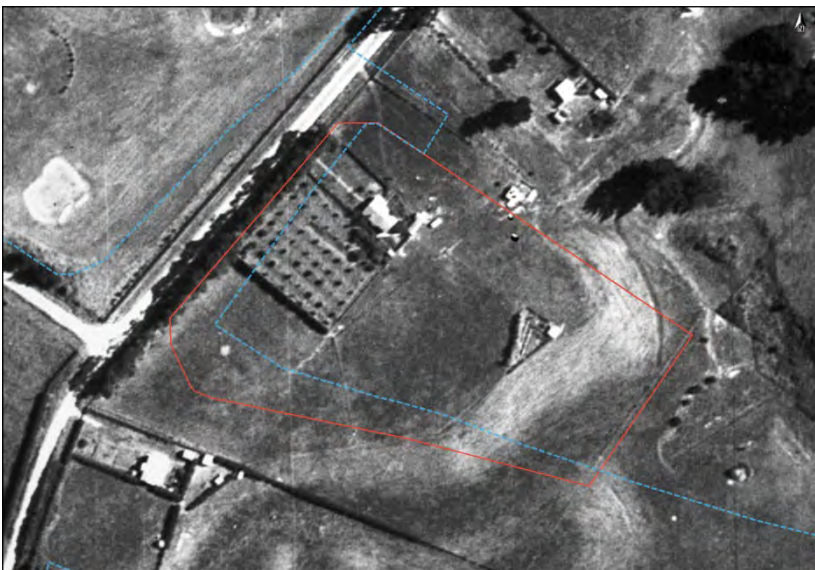


2003 – Residences in the north of each property.



2025 – No change

Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Cropping/ market garden in the north of the site in the 70s, but well outside designation. No HAIL activities within designation.

Address	1484 Cameron Road																								
Site reference	27																								
Legal Description	Lot 1 DPS 84655																								
Owner	Western Bay of Plenty District Council																								
Site area (ha)	2.4543																								
Current land use	WBOPDC Council offices																								
Certificate of Title	SA67A/706																								
Property file summary	CSMP- PSI completed by Aurecon 2020: potential contamination from persistent pesticide and fertiliser application, uncontrolled filling in gully, placement of uncontrolled fill in and around access tracks, use of lead paint and asbestos materials associated with historical structures. Limited soil sampling demonstrated elevated heavy metals above background and ecological risk screening criteria (Ref: RC27854 CSMP- Fire and Emergency NZ, 1468 & 1472 Cameron Road- consent to establish emergency facility.																								
Consents	No resource consents																								
HAIL ID	Not on LUR																								
HAIL land uses	A10, E1, I																								
Previous land uses	<table data-bbox="1244 1397 1426 1507"><tr><td colspan="4">Title: Historical Aerial 1950</td></tr><tr><td colspan="4">Client: BMO</td></tr><tr><td>Project:</td><td>Tauriko West Designation</td><td>Drawn:</td><td>Figure: A1</td></tr><tr><td>Date:</td><td>01/02/2020</td><td>Checked:</td><td></td></tr><tr><td>File No:</td><td>2304-104-1484</td><td>Scale:</td><td>100%</td></tr><tr><td>Comments:</td><td></td><td>Version:</td><td>draft</td></tr></table>	Title: Historical Aerial 1950				Client: BMO				Project:	Tauriko West Designation	Drawn:	Figure: A1	Date:	01/02/2020	Checked:		File No:	2304-104-1484	Scale:	100%	Comments:		Version:	draft
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Project:	Tauriko West Designation	Drawn:	Figure: A1																						
Date:	01/02/2020	Checked:																							
File No:	2304-104-1484	Scale:	100%																						
Comments:		Version:	draft																						

1950 - Pastoral grazing with a dwelling and orchard in the NW



1963- Multiple office buildings within the site, developed gardens/grounds.



1977 – No change



1986 – No change

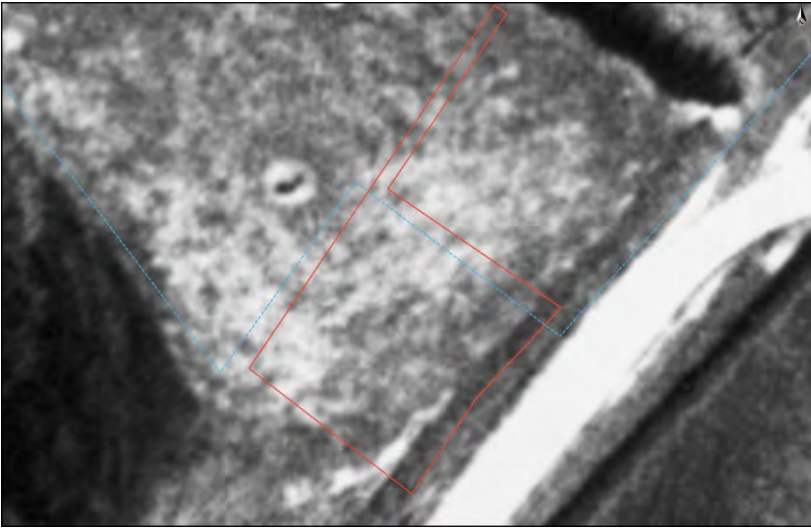


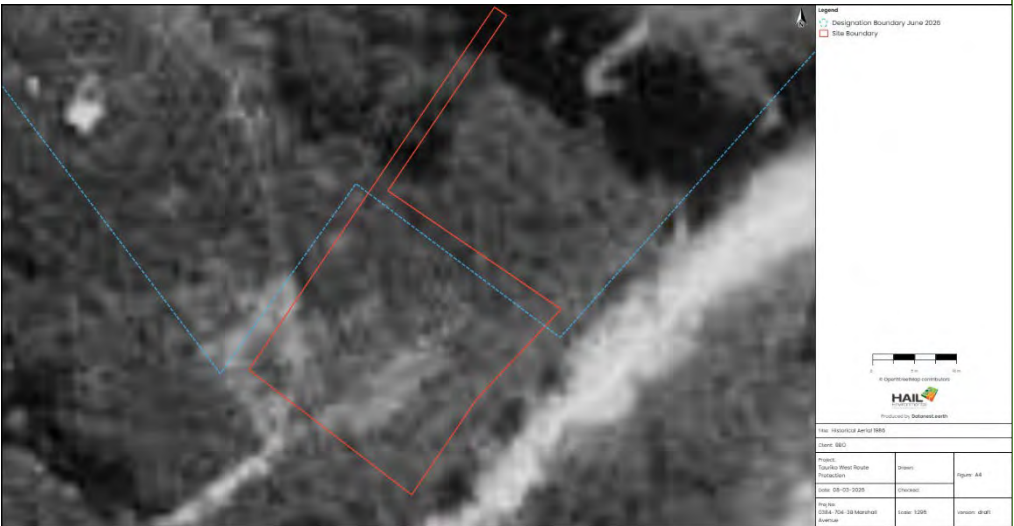
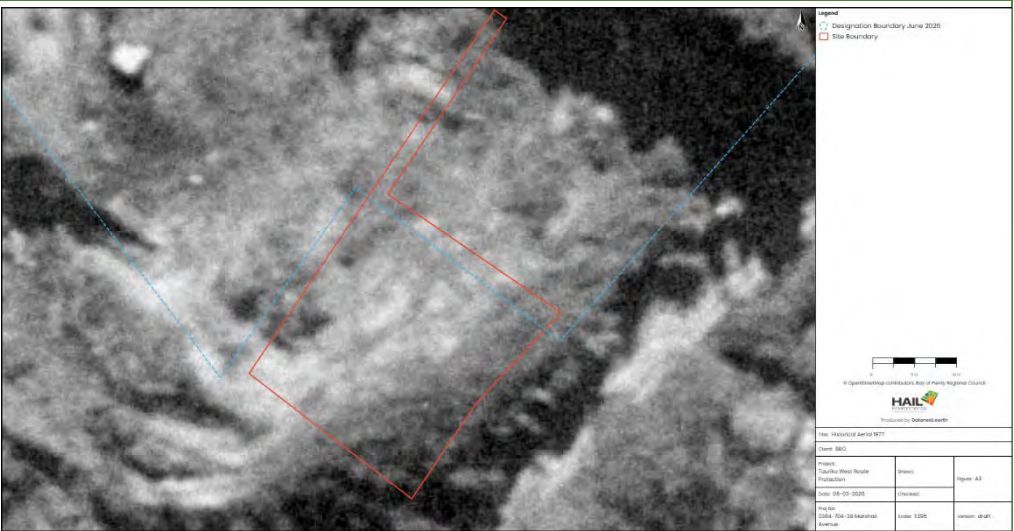
1992 – No change



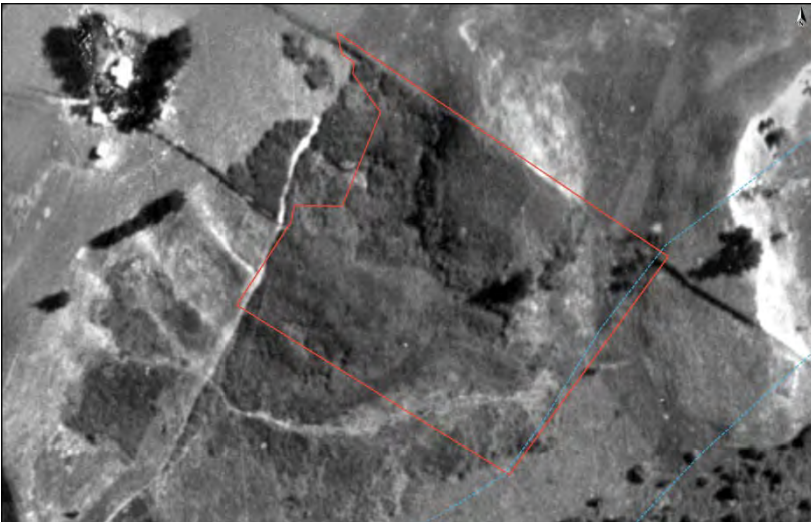
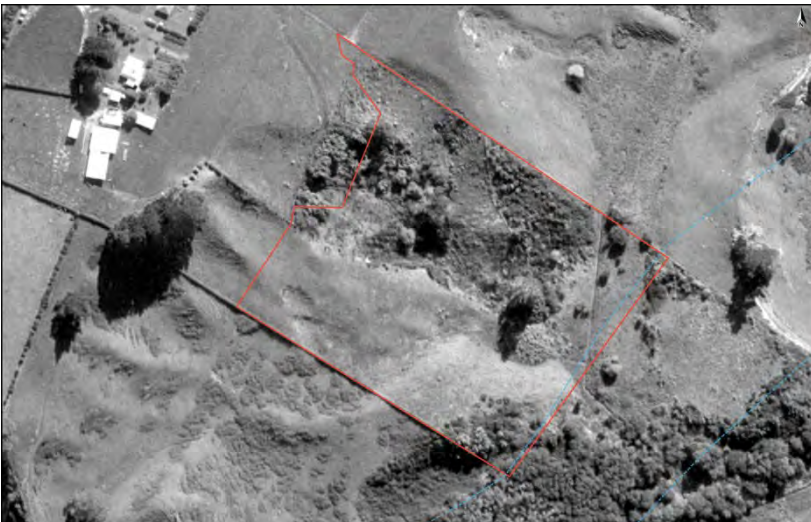
2011 – No change

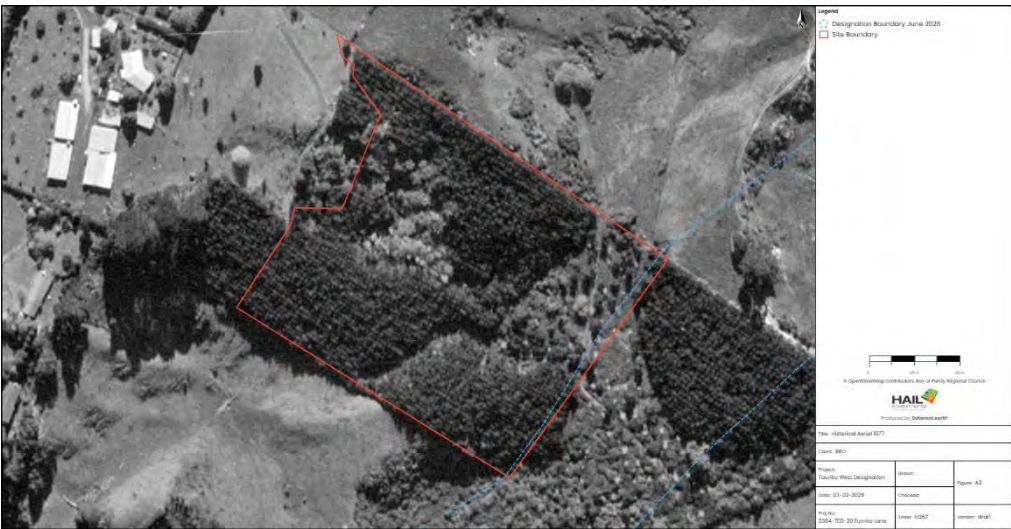
	 Site Boundary Designation Boundary June 2025 Scale: 1:1000 HAIL Environmental THE COMMUNITY-LED PESTICIDE ACTION 2025 – No change
Previous investigations	None undertaken
Site inspection	Not inspected
Adjoining land use	Commercial / industrial business
Summary of potential HAIL land use(s)	Orchard in the 1950s – Potential persistent pesticide contamination. WBOPDC offices in the 60s- potential ACM and lead impacts around buildings.

Address	3B Marshall Avenue
Site reference	28
Legal Description	Lot 2 DPS 56196 (Cross Lease Properties)
Owner	s9(2)(a)
Site area (ha)	0.06B
Current land use	Residential
Certificate of Title	SA52B/455
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	A18, E1, I
Previous land uses	 1950 – Vacant land  1963 – Part of timber mill, timber storage





Address	20 Furniss Lane
Site reference	29
Legal Description	Lot 2 DP 315466
Owner	s9(2)(a)
Site area (ha)	0.7
Current land use	Residential- Scrap yard
Certificate of Title	60841
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	I
Previous land uses	 1950 – Pastoral Grazing  1963 - No change



1977 - Thick vegetation, possibly some kind of plantation forestry.

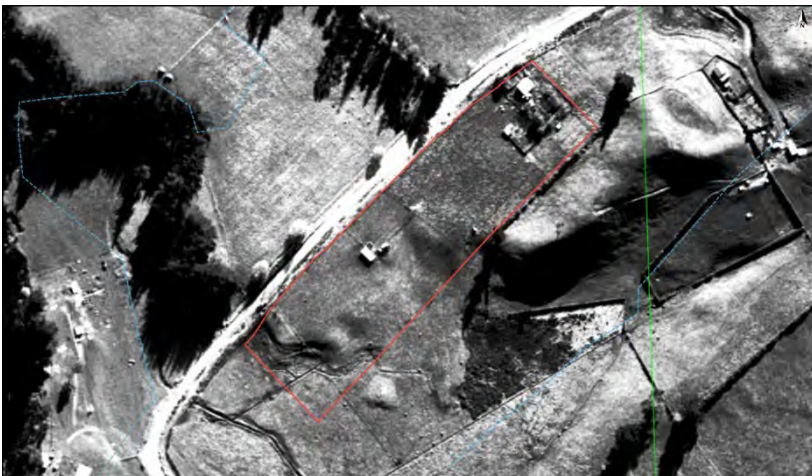


1992 - Land mostly cleared of vegetation, earth worked area and new dwelling in north of site, outside designation.



2003 - New shed and pool in north of site. Scattered vehicles across site, but outside designation.

	 2011 - Vehicle junk/scrap yard across much of site but outside designation.
	 2025 – No change
Previous investigations	None undertaken
Site inspection	Not inspected
Adjoining land use	Rural land
Summary of potential HAIL land use(s)	Scrap yard in the northwest portion of the site. Topography slopes towards the designation, potential for overland flow of contaminants, and therefore land within designation could be subject to HAIL category H.

Address	1027 SH 29
Site reference	30
Legal Description	Section 2 SO 475075
Owner	s9(2)(a)
Site area (ha)	2.41
Current land use	Orchard and residential
Certificate of Title	692429
Property file summary	Not requested
Consents	Multiple consents: RM18-0582-LC.02, RM24-0447-LC.01, RM24-0447-LC.02, RM24-0447-DC.02, RM24-0447-DC.01.
HAIL ID	LUR – TGA - 00568
HAIL land uses	A10, E1, I relevant to northern portion.
Previous land uses	 1950 - Pastoral with dwelling and sheds  1963 – No change



1970 - No change



1986 - Shed in centre of site, and dwelling and small domestic sheds in the north. Orchard planted.



1992 - No change



2003 – No change

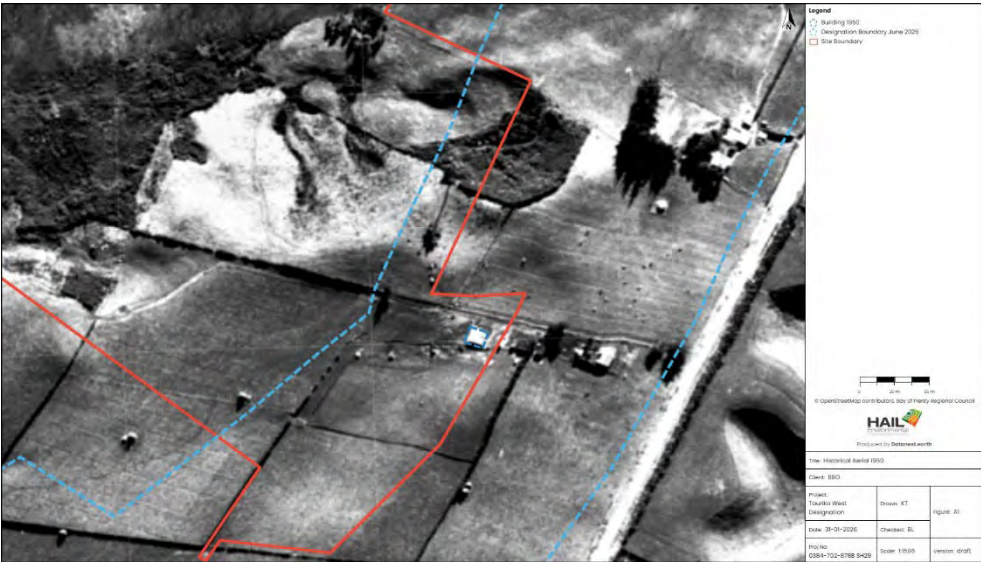
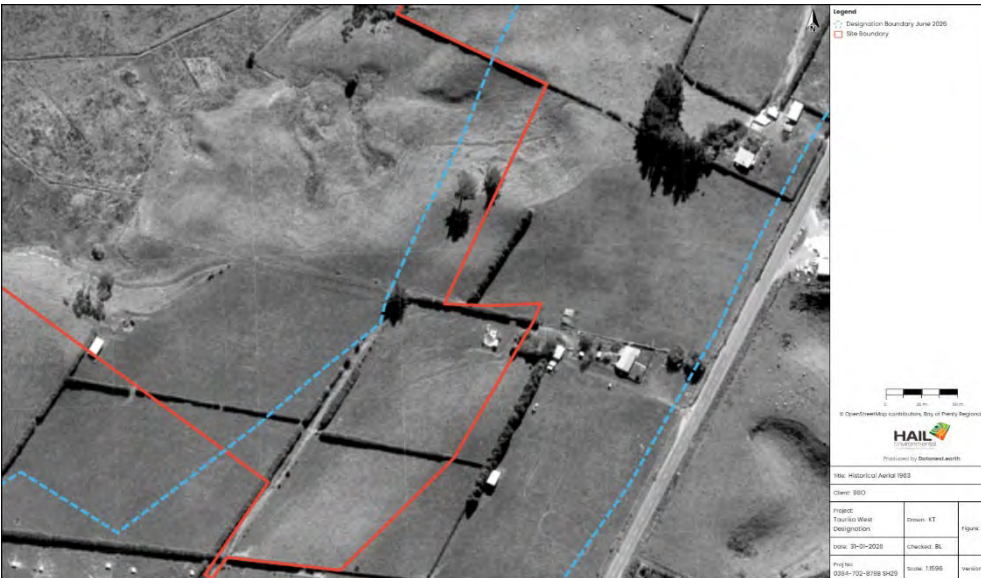


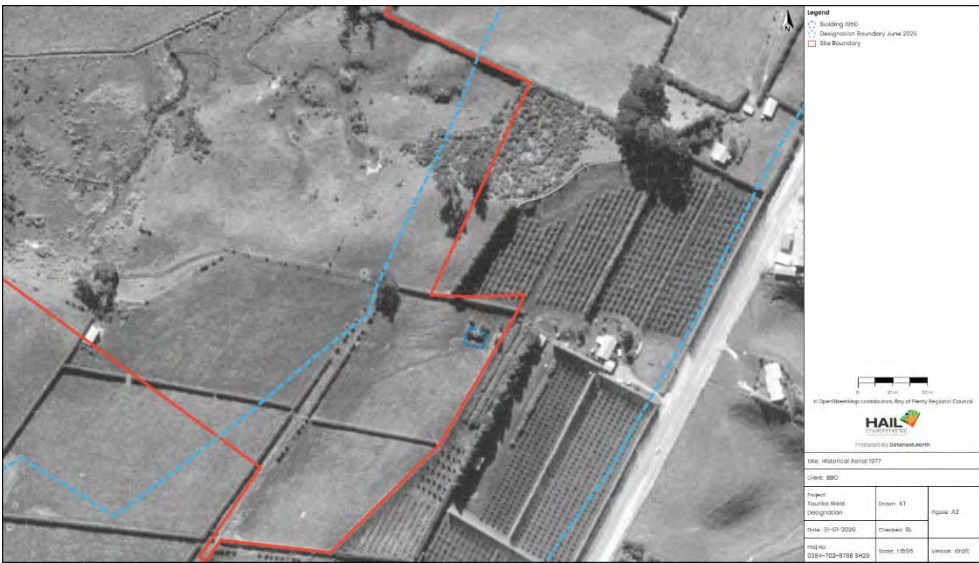
2011 - Part of orchard removed.



2025 - Dwelling remains, remainder of property under roadwork construction.

Previous investigations	Aurecon, 2017 WSP 2022 (SP1 PSI, DSI) 2023 (CSMP-RAP) HAIL 2024 (0338 Remedial Delineation - Area 11); 0338 Area 11 SVR_FINAL)
Site inspection	Not inspected
Summary of potential HAIL land use(s)	ACM and arsenic impacts remediated (Ref: HAIL 2024). Site heavily earthworked during SH29 Enabling Works construction. Original residential dwelling in northern portion remains.

Address	878B State Highway 29, Tauriko
Site reference	31
Legal Description	Lot 1 DP 512150
Owner	s9(2)(a)
Site area (ha)	2.37
Current land use	Farmland with residence
Certificate of Title	788673
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	E1, I
Previous land uses	 1950 - Pastoral, shed in east, inside designation  1963 - No change



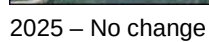
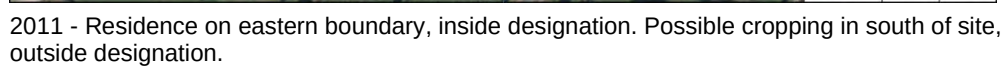
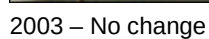
1977 - Haybarn in centre of site, shed in far north, both outside of designation.



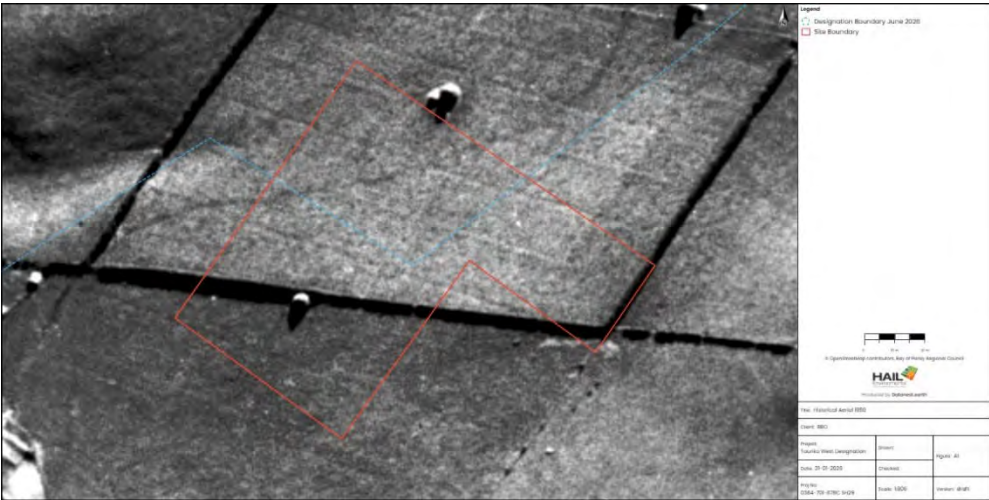
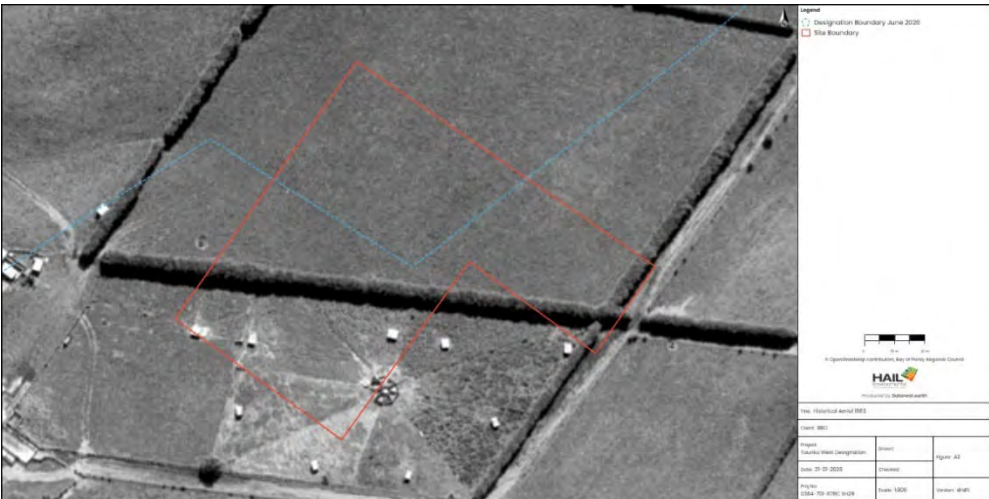
1986 - Shed in east, inside designation, removed.

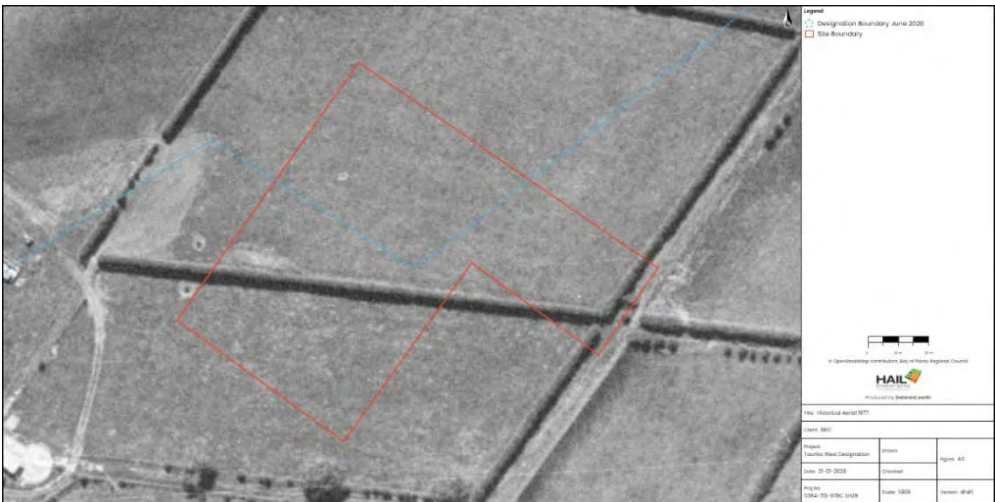


1992 - No change

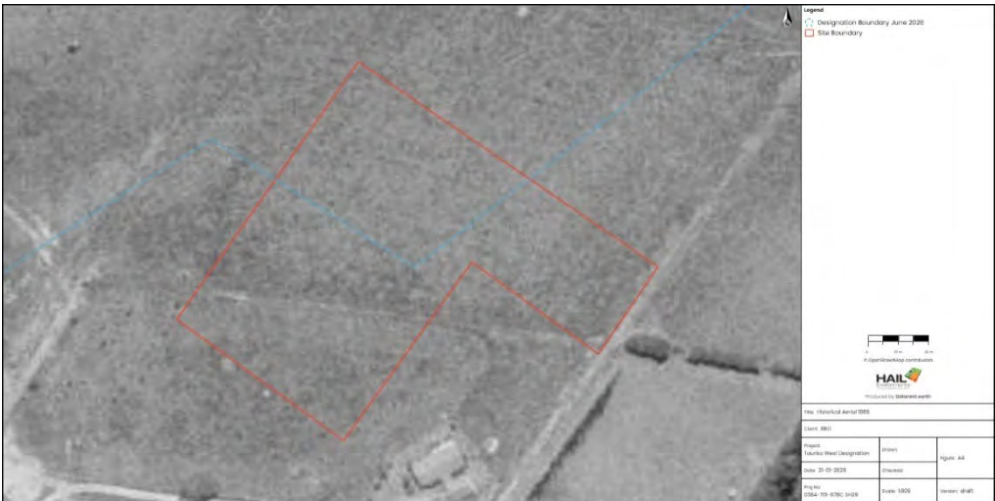


Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Potential ACM and lead impacts in former building (1950's) footprint.

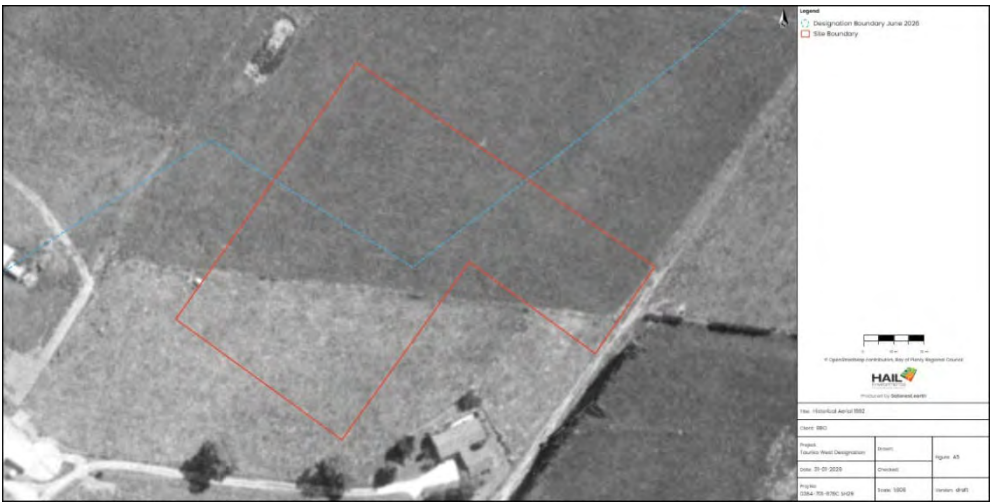
Address	878C State Highway 29, Tauriko
Site reference	32
Legal Description	Lot 6 DP 512150
Owner	s9(2)(a)
Site area (ha)	0.93
Current land use	Cropping/grazing pasture
Certificate of Title	788678
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	No HAIL activities identified
Previous land uses	 1950 - Pasture  1963 – No change



1977 – No change



1986 - No change



1992 – No change



2011 - Cropping, possibly maize



2017 – No change



2025 – Pastoral cropping, maize

Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	No potential HAIL activities identified

Address	808 State Highway 29, Tauriko, Tauranga
Site reference	33
Legal Description	Allotment 797 Parish of Te Papa
Owner	s9(2)(a)
Site area (ha)	0.02
Current land use	Residential
Certificate of Title	SA25B/1242
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	E1, I, G5
Previous land uses	 1950 - Pastoral  1963 – Residential section with dwelling in southern corner of site.





2017 – No change



2025 – No change

Previous investigations	Aurecon reported possible filling and/or vegetation dumping in the northeast and middle of the site within the scrub. Small personal orchard along eastern boundary (Ref: Aurecon)
Site inspection	Yes
Adjoining land use	Residential and pastoral grazing.

Site photos	 Significant stockpiled demolition debris downhill mixed with topsoil and silty fill. Presence of paint cans and plastic containers. Area outside designation.	 Stockpiled demolition debris mixed with topsoil and silty fill. Area outside designation.
	 Brick dwelling.	 Cement plaster on basement.
Summary of potential HAIL land use(s)	Potential ACM and lead impacts. Area of uncontrolled fill appears to be outside designation.	

Address	1/579, 2/579, 3/579 Cambridge Road
Site reference	34
Legal Description	Lot 2 DPS 53844, Lot 3 DPS 53844, Lot 1 DPS 53844
Owner	s9(2)(a)
Site area (ha)	0.50, 0.35, 0.42
Current land use	Residential
Certificate of Title	SA46D/899, SA46D/900, SA46D/898
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	E1, I on 1/579, and 3/579. No HAIL activities identified on 2/579.
Previous land uses	 1950 – Dwelling and sheds on 1/579. Possible small animal pen or small building on 2/579. 3/579 is pasture.  1963 – Small domestic orchard planted on 1/579 and 2/579. Building removed from 3/579.



1977 – No change



1992 – New dwellings on 2/579 and 3/579 Cambridge Road.



2011 – Developed residential sections.



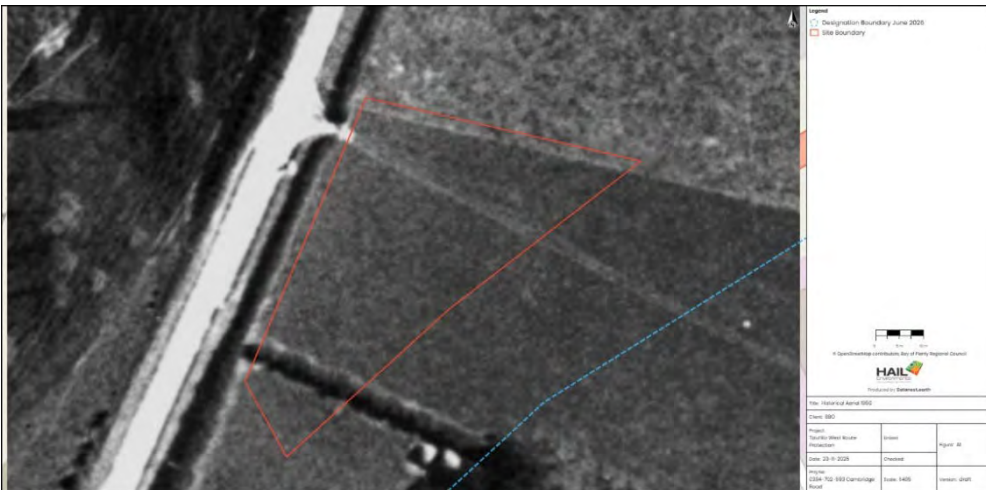
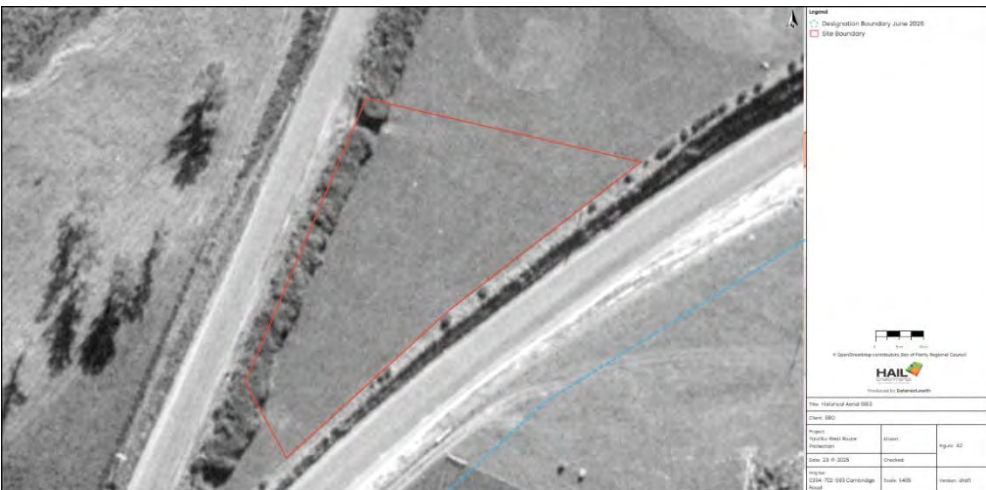
2017- No change



2025 – No change

Previous investigations	None undertaken
Site inspection	Yes, only at 1/579 Cambridge Road.
Adjoining land use	Residential

Site photos		
	Fibreboard cladding at 1/579.	Galvanized tiles and metal frames.
		
	Domestic green house.	Domestic vegetable garden.
Summary of potential HAIL land use(s)	Potential ACM and lead impacts on 1/579 and 3/579. Vegetable garden and greenhouse are not commercial activities, and therefore not HAIL.	

Address	593 Cambridge Road
Site reference	35
Legal Description	Pt Lot 3 DPS 16741
Owner	s9(2)(a)
Site area (ha)	0.2574
Current land use	Residential
Certificate of Title	110395
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	No HAIL activities identified
Previous land uses	 1950 – Pastoral grazing  1963 – No change



1977 – No change



1992 – No change



2003 – Four buildings / dwellings within site

	 2011 – No change
	 2017 – No change
	 2025 – No change
Previous investigations	None undertaken
Site inspection	Yes
Adjoining land use	Residential

Site photos	 Fiberboard cladding, Asphalt sheet tiles.	 ACM soffits on dwelling
Summary of potential HAIL land use(s)	 Iron clad building – unlikely ACM No HAIL activities identified.	 Concrete wall

Address	587 Cambridge Road, Tauriko
Site reference	36
Legal Description	Lot 2 DP 16741
Owner	s9(2)(a)
Site area (ha)	0.5
Current land use	Residential
Certificate of Title	SA14D/1451
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	No HAIL activities identified
Previous land uses	 1950 -Pastoral  1963 – No change



1977 – No change



1992 – Earth worked pad in middle of site



2003 – Disturbed ground stabilised, returned to pasture.



2011 - No change

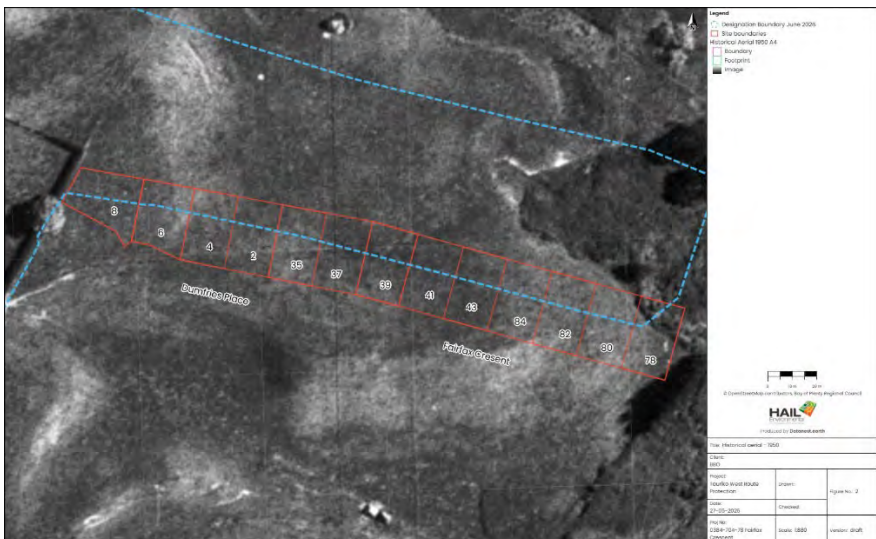
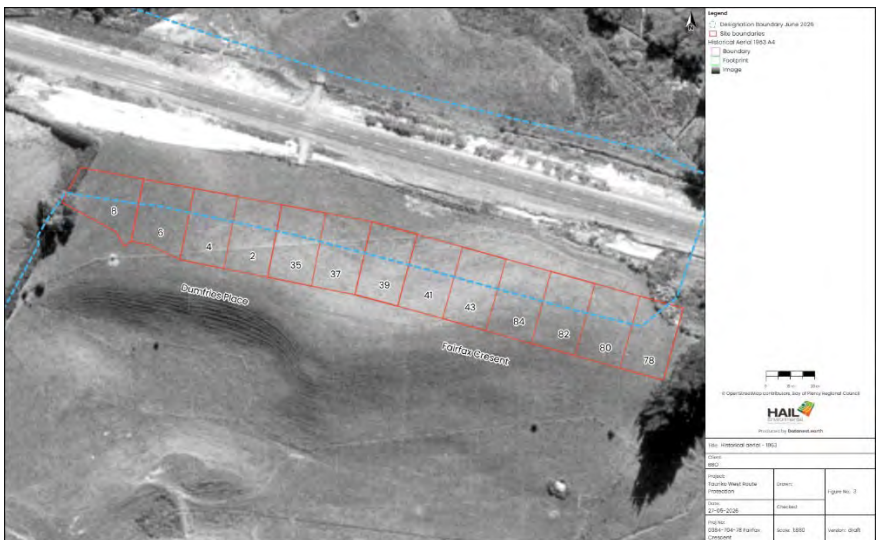


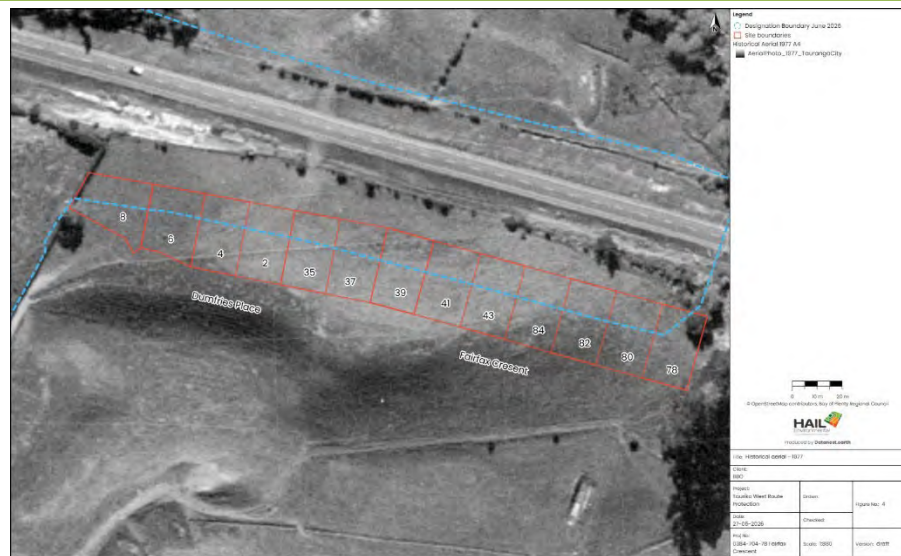
2017 – Dwelling within site



2025 – No change

Previous investigations	None undertaken
Site inspection	Not inspected
HAIL land use(s)	No potential HAIL activities identified

Address	2 Dumfries Place – 78 Fairfax Crescent, Pyes Pa, Tauranga
Site reference	60
Legal Description	Lots 32 – 39 DP 372334, Lots 40-42 DP 387249, Lot 43 and 44 DP 402843
Owner	s9(2)(a)
Site area (ha)	0.7
Current land use	Residential
Certificate of Title	292658, 292659, 292660, 292661, 292662, 292663, 349222, 349223, 349224, 349225, 349226, 409492, 409491
Property file summary	Not requested
Consents	No resource consents
HAIL ID	78 and 80 Fairfax- LUR-TGA 00810, and LUR-TGA 00809. All others not on LUR
HAIL land uses	A10
Previous land uses	 1950 - Pastoral grazing  1963 - No change



1977 - No change



1992 - Orchard



2003 - No change



2011 - Residential sections



2020 - No change



2025 - No change

Previous investigations	Detailed site investigation completed on 78 and 80 Fairfax Crescent in 2015 by Groundwater and Environmental services. Results show heavy metals below background. DDT presence considered representative of ambient concentrations (Ref: GES, 2015). Given these sections were part of the same orchard, at the same time, it is considered most likely that soil concentrations would match those of 78 and 80 Fairfax.
Site inspection	Not inspected
Summary of potential HAIL land use(s)	No potential HAIL activities have been identified. LUR states site is suitable for residential land use.

Address	782 SH29
Site reference	61
Legal Description	Lot 1 and 2 DPS 4898
Owner	CROWN
Site area (ha)	0.0885
Current land use	Aug 2025, currently under demolition. Fix food premises, part of service station
Certificate of Title	1185092
Property file summary	1976: Add to service station, specifications include asbestos coating. 1985: Alter service station, specifications include asbestos cement pipes. 1990: Demolition at service station site. 1991: Plans for installation of two 30,000 L underground storage tanks, note tanks in ground for approximately 20 years. 1990: Alter and add to service station – carwash drain with oil interceptor. Specifications note asbestos cement surfaces. 1991: Proposed truck stop and re-site building adjacent to service station. 1997-98: Alterations to service station and refurbish site. 2000: Building consent to upgrade fuel court and dispenser. Install API previous runoff to soakage. Failure of drainage soakage system to dwelling noted. 2008: Replace fuel storage tanks and pipework and install API. Replace tanks with 2 double walled fiberglass tanks. 2010: Pollution Prevention Audit found blocked drains, pump hoses corroded and interceptors needing cleaning.
Consents	No resource consents
HAIL ID	LUR – TGA - 00326
HAIL land uses	F7, G5, E1
Previous land uses	 1950 - Vacant land



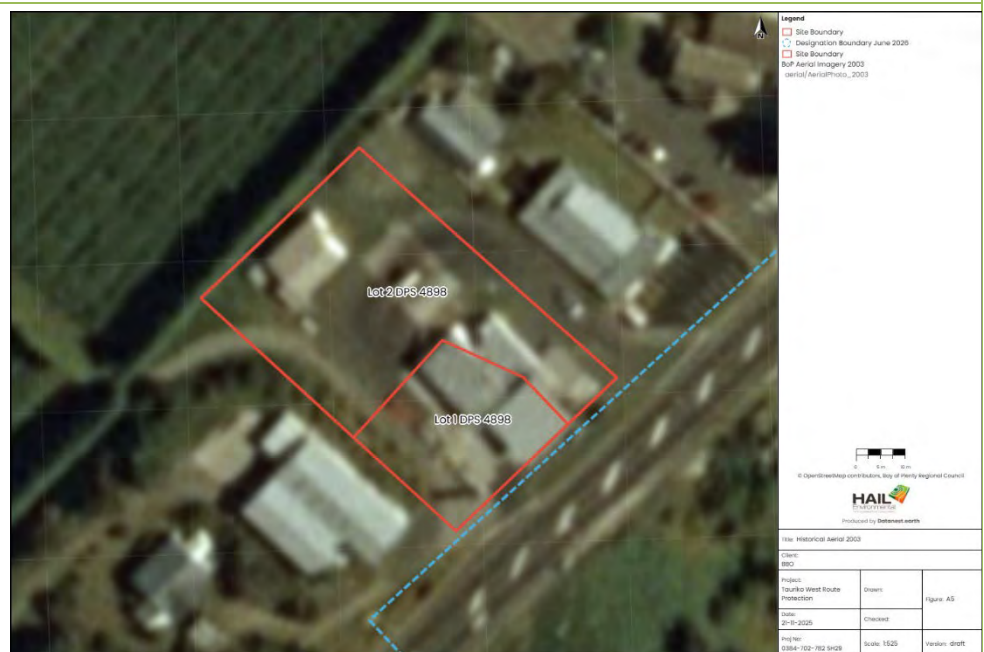
1963 - Buildings located on Lot 1. Building located on the SE of Lot 2.



1977 - Buildings were demolished and service station constructed. Lot appears sealed except western boundary. 3-4 sheds/buildings constructed on Lot 2.



1992 - Two sheds on northern boundary removed, two new sheds present- One in centre of site behind service station, one in western corner.



2003 - No change



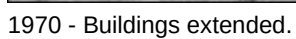
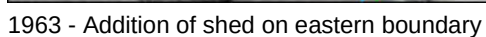
2011 - No change

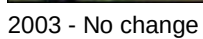
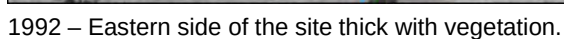


2020 - Central building has been removed, truck filling station now present. Clear to see site is largely sealed.

Site summaries 18 July 2026 - Pt 4 of 4.docx Page 9

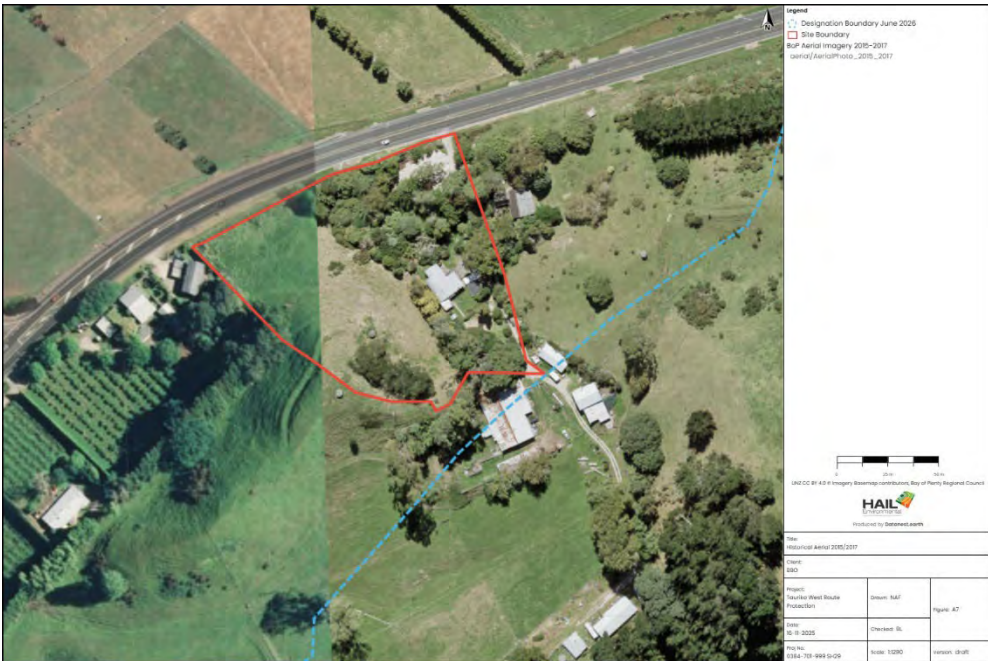
Address	999 State Highway 29
Site reference	62
Legal Description	Section 4 SO 475075
Owner	s9(2)(a)
Site area (ha)	1.3
Current land use	Rural residential and pastoral
Certificate of Title	692428
Property file summary	Not requested
Consents	Multiple consents: RM18-0582-LC.02, RM24-0447-LC.01, RM24-0447-LC.02, RM24-0447-DC.02, RM24-0447-DC.01
HAIL ID	Not on LUR
HAIL land uses	E1, I
Previous land uses	 1950 – Pastoral, dwelling in southeast.





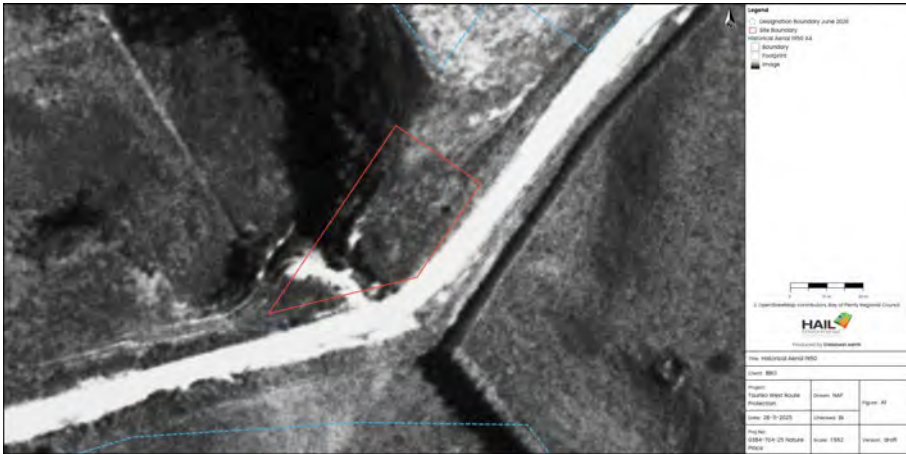


2011 - Building appears to be residential, clothesline in backyard.



2017 - No change

	<table data-bbox="1192 784 1399 911"><tr><td colspan="3">Title</td></tr><tr><td colspan="3">Site location</td></tr><tr><td colspan="3">Client</td></tr><tr><td colspan="3">SNO</td></tr><tr><td>Project</td><td>Client</td><td>Page No.</td></tr><tr><td>Tauriko West Route Protection</td><td>SNO</td><td>1</td></tr><tr><td>Date</td><td>Created</td><td></td></tr><tr><td>10/10/2025</td><td>10/10/2025</td><td></td></tr><tr><td>Project</td><td>Scale</td><td>Version</td></tr><tr><td>Tauriko West Route Protection</td><td>1:1000</td><td>01/01</td></tr></table> 2025 - No change to residence, but earthworks on south and west perimeter.	Title			Site location			Client			SNO			Project	Client	Page No.	Tauriko West Route Protection	SNO	1	Date	Created		10/10/2025	10/10/2025		Project	Scale	Version	Tauriko West Route Protection	1:1000	01/01
Title																															
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Tauriko West Route Protection	SNO	1																													
Date	Created																														
10/10/2025	10/10/2025																														
Project	Scale	Version																													
Tauriko West Route Protection	1:1000	01/01																													
Previous investigations	None undertaken																														
Site inspection	Not inspected																														
Summary of potential HAIL land use(s)	Potential ACM and lead impacts around buildings.																														

Address	25 Nature Place
Site reference	63
Legal Description	Lot 1 DPS 89978
Owner	s9(2)(a)
Site area (ha)	0.1308
Current land use	Commercial
Certificate of Title	SA71A/855
Property file summary	1968 Erect steel storage shed.1979: application for extension to metal engineering workshop 'Marshall Engineering Ltd'. Property documents show the main workshop is constructed of concrete blocks and corrugated iron walls with corrugated iron roof. The detached office is fibrolite construction. Documents state 'an extensive range of products are manufactured in the workshop as well as providing general engineering, repairs and maintenance. Products include revolving solar water heaters, water heaters for use in milking sheds and shows, stabilisers for caravan towing, vehicle tow bars, 'panic' bolt safety devices, auto spring manufacture and fitting, servicing of dairy pumps, specialist tractor additions for kiwifruit and other orchards'. 1986: Erect office and workshop, upgrade present showroom and amenities.19 Extension to building to front boundary. 2011: Site repair of slip of erosion scarp and installation of a retaining wall. Geotechnical report states that the soils seen in the eroded face comprised mixed pumiceous silts that had been placed as filling to extend the useable yard within the property at 25 Nature place. A borehole that we put down at the fenceline and adjacent to the erosion scarp showed that filling is more than 3.5 m deep. The presence of topsoil layers between the original ground and filling overlay indicates the topsoil had not been removed in accordance with good practice and therefore the filling had been pushed over the original slope face.' 2012 Create living accommodation in commercial building.
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	A17, D5, E1, I
Previous land uses	 1950 - Earthwork in south of site



1963 - Large building present on site, ground surface appears unsealed



1977 - Addition of small shed



1986 - No change





2020 - No change



2025 - No change

Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Engineering workshop since the 1960s, potential ACM and lead impacts around buildings. Use and disposal of solvents and other hazardous substances onsite possible.

Address	1 Pyes Pa Road
Site reference	64
Legal Description	Lot 1 DPS 22994
Owner	s9(2)(a)
Site area (ha)	0.241
Current land use	Commercial
Certificate of Title	SA25A/284
Property file summary	1967: building specifications, external fibrolite sheeting and walls. 1963: site used as a contractor's depot. 1967: commercial garage and farm machinery repair. 1992: dangerous good inspection- paints and thinners not stored appropriately in an approve store and the underground tanks to be removed if not being used. 2011: UPS system decommissioned and removed, bedding material removed to Hampton Downs, soil remaining on site in location of tanks complies with Oil Industry guidelines for commercial/industrial land use.
Consents	No resource consents
HAIL ID	LUR – TGA - 00352
HAIL land uses	A17, I, D5, E1, F3, F4
Previous land uses	 1950 - Dwelling in top northeast corner. Rest of property is grazing pasture  1963 - No change



1977 - Dwelling and pasture removed. Site replaced with a commercial building which covers most of the site. Ground surface appears gravel.



1986 - No change



1992 - No change



2003 - No change

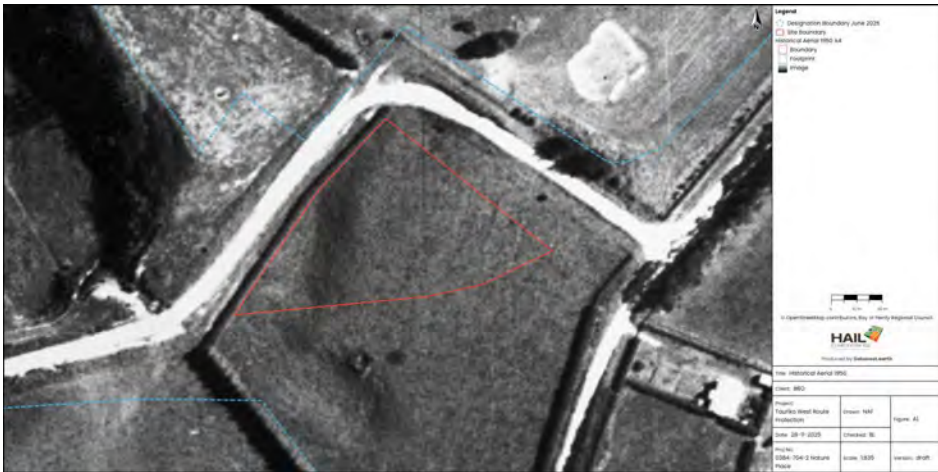


2011 - No change



2020 - No change

	 2025 - No change	
Previous investigations	None undertaken	
Site inspection	Yes. No access to interior of building. Staining noted in oil dispensing area and washdown area. Evidence of UPSS noted.	
Site photographs	 Largely sealed site. Mostly corrugated iron exterior.	 Front of shop and fuel forecourt
	 Plaster cladding on front of shop	 Former pump stations
	Summary of potential HAIL land use(s)	
	Workshops with storage tanks or drums for fuel, chemicals or liquid waste, potential ACM and lead impacts around buildings.	

Address	2 Nature Place
Site reference	65
Legal Description	Part Allot 851 Te Papa PSH
Owner	CROWN
Site area (ha)	0.4802
Current land use	Commercial
Certificate of Title	NA
Property file summary	1997: proposed new glasshouse. 2001: application to build new pacific auto traders workshop. 2007: telecommunications tower installed. Records show this site was used as a Waste Storage, Treatment And/or Disposal site between 1905 and 1995. This land use may have occurred on site outside the period indicated (Ref: SLUR)
Consents	No resource consents
HAIL ID	LUR – TGA - 00039
HAIL land uses	D5, E1, E2, G5, F4, F8, I, G3
Previous land uses	 1950 - Pastoral  1963 - Site bound by trees. Several sheds in commercial yard.



1977 - Addition of two buildings in north and two in south.



1986 - Removal of all buildings



1992 - No change



2003 - Eastern side of site is commercial, building in centre of site



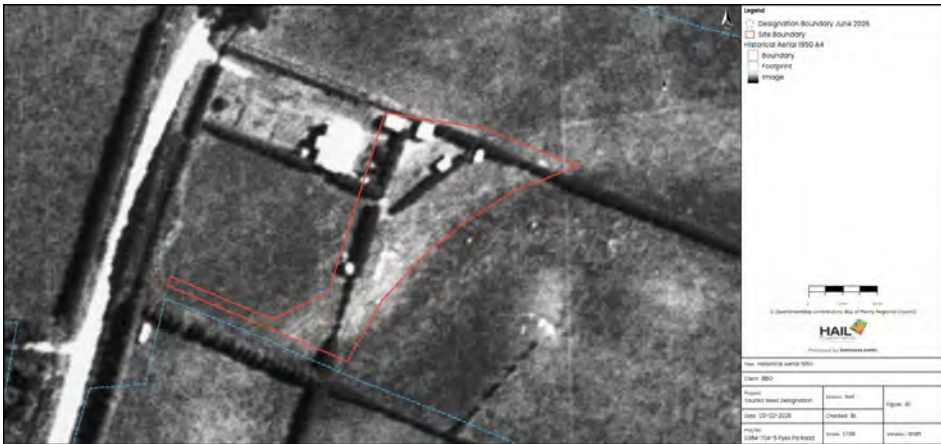
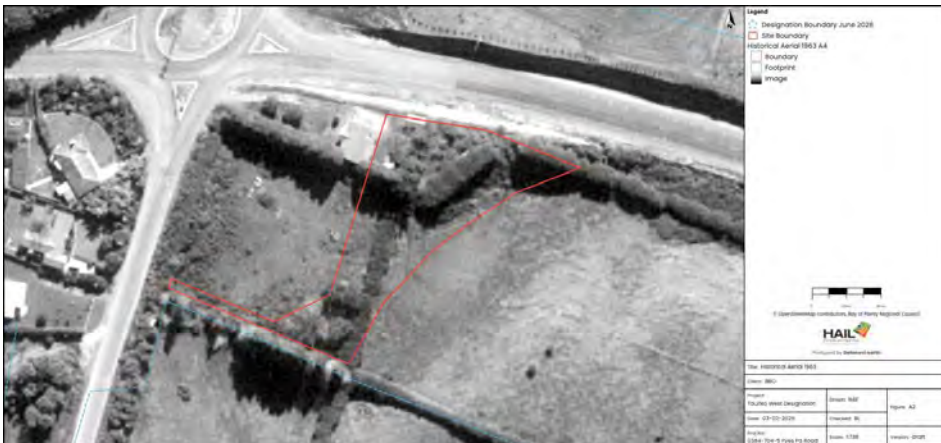
2011 - Containers and buildings in west of site, gravel surface on western portion. Commercial site - transport yard



2020 - No change

	 2025 - The western portion of site is now vacant.
Previous investigations	None undertaken
Site inspection	Yes, in conjunction with geotechnical investigation
Photos	  Diesel supply (adjacent to CPT 1045) BH1021
Summary of potential HAIL land use(s)	Commercial site from 1960s. Site used for storage of roading materials and for truck washing by Western BOP District Council. In 1996 Water Tech Group released toxic chemicals tributynol and several other unidentified chemicals. Some attempt was made to remove the contaminated soil and divert run off. The site was later used as a rubbish dump by a contractor who accumulated a large mass of waste materials from many sources at the site. Potential ACM and lead impacts at the site. Site is adjacent to former timber mill - contaminants may extend onto the site and nature place. A February–March 2026 geotechnical investigation at 2 Nature Place by BECA, with HAIL Environmental oversight, identified generally low-risk conditions (no asbestos or hazardous gases) but confirmed the presence of contaminants above background levels, including metals, TPH, and PAHs. Localised issues include inert fill at shallow

	depth, minor diesel staining near a known above ground tank supply, and one hotspot (HA1010) exceeding commercial/industrial criteria for Benzo(a)pyrene. Some soils also exceed cleanfill acceptance criteria, indicating portions of material will require managed disposal or controlled reuse, with targeted delineation of contamination recommended.
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Address	5 Pyes Pa Road
Site reference	66
Legal Description	Lot 1 DPS 50055
Owner	s9(2)(a)
Site area (ha)	0.163
Current land use	Commercial
Certificate of Title	SA42B/680
Property file summary	Property files are only listed for the residence in the south of the site, erected in the early 2000s, and is outside of the designation.
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	E1, I
Previous land uses	 1950 - Two small sheds, possibly animal shelters, part of adjacent residential site  1963 - No change, but heavily vegetated



1977 - Site is cleared and has a large building/workshop and small shed



1986 - Small shed has gone, and a new larger shed present in the south.



1992 - The shed in the south no longer present. Might have just been a truck or container.



2003 - New shed present on western boundary



2011 - No change



2020 - No change

	 2025 - No change	
Previous investigations	None undertaken	
Site inspection	Yes	
Adjoining land use	Industrial / Commercial / Residential	
Site photos	 Storage of paints and multiple chemicals for household use. Concrete slab.	 Fill material placed to build the ramp to access the property
	 Cement cladding as well as the windows, framing fibreboard well painted.	
Summary of potential HAIL land use(s)	Potential ACM and lead impacts around current and former buildings.	

Address	2 Pyes Pa Road
Site reference	67
Legal Description	Lot 1 DPS 1143
Owner	s9(2)(a)
Site area (ha)	0.2555
Current land use	Commercial (Lots 1 and 2)
Certificate of Title	SA15C/862
Property file summary	2003: remove house, pool, shed and carport. 2005: erect warehouse, showroom and offices. 1989: erect shed- all corrugated iron exterior. 1979: additions to dwelling- constructed of asbestos sheeting. 1980: Erect shed and carport, specifications show it is constructed of asbestos sheeting. 2004: consent to operate Hire equip business.
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	E1, F4, I
Previous land uses	 1950 - Pastoral grazing  1963 - Property is in two titles, dwellings on each property and a shed on the northern lot.



1977 - No change, but additional buildings on the southern lot.



1986 - No change on northern lot, dwelling/ several buildings removed on southern lot.



1992 - New shed in west of northern lot, new dwelling in east of southern lot.



2003 - Image of poor quality but appears no change.



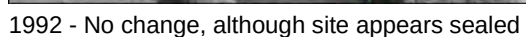
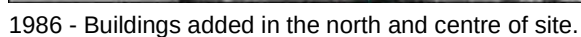
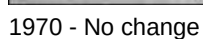
2011 - All buildings have been removed and replaced with commercial buildings which cover south and western side of the site. Sealed ground surface in the north and west.



2020 - No change

Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Potential ACM and lead impacts. Commercial site with machinery since early 2000s, potential hydrocarbon impacts.

Address	1064 SH29, Omanawa
Site reference	68
Legal Description	Lot 1 DPS 7687
Owner	s9(2)(a)
Site area (ha)	0.46
Current land use	Commercial business – portion extends east onto and within designation boundary
Certificate of Title	SA1B/971
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	A17, E1, F8, G3, I
Previous land uses	1950 - Small buildings in the south. 1963 - Earthworks in the north.





2003 - No change

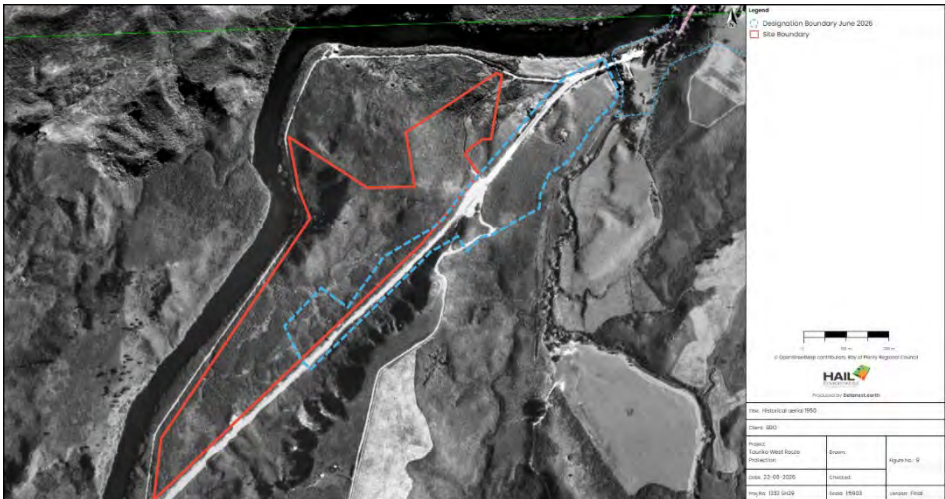
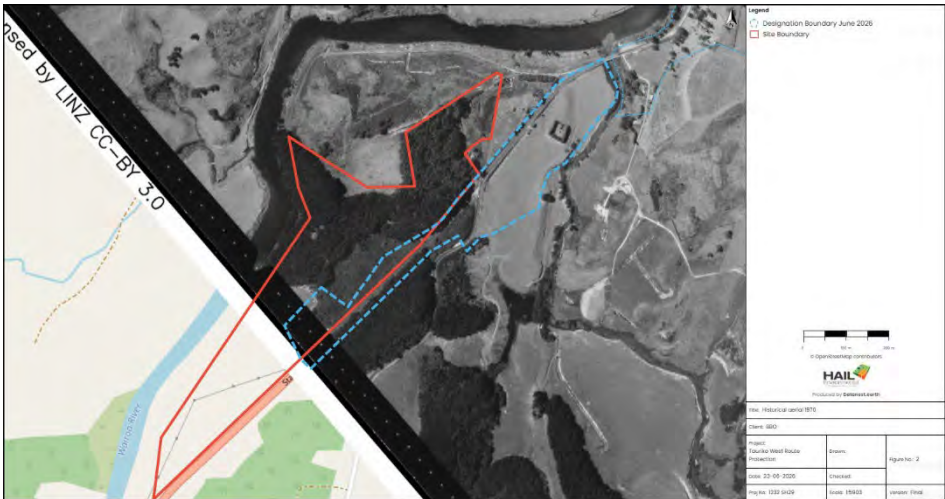


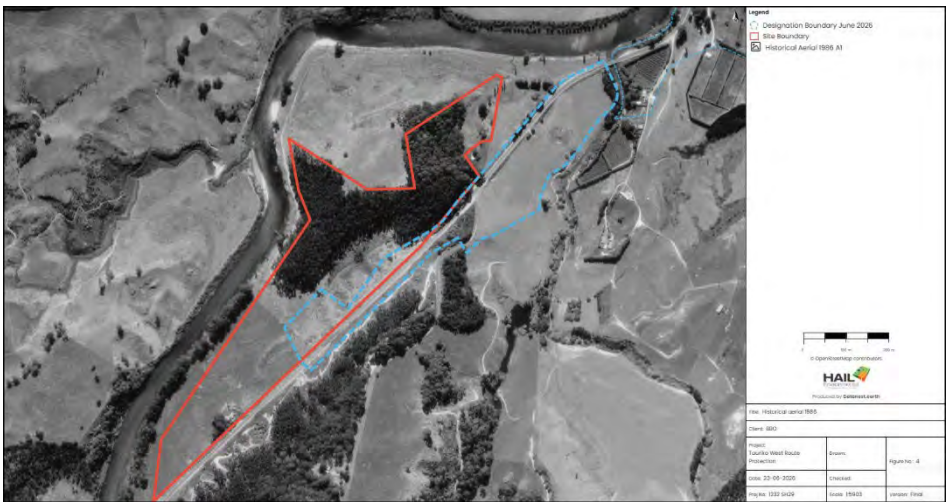
2011 - Site inbuilt with more buildings



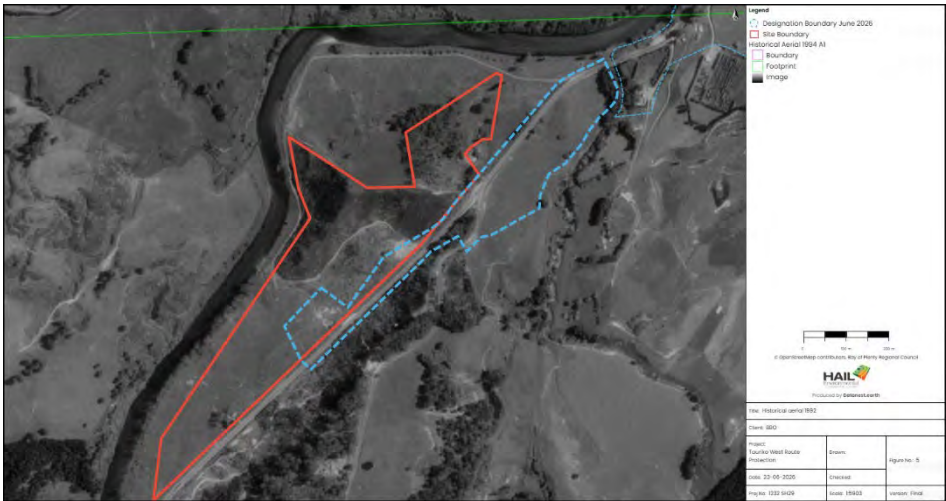
2020 - No change

	 2025 - No change
Previous investigations	None completed
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Storage of fuels, filling activities, burn piles, potential ACM and lead impacts around buildings – possibly extending onto land within designation boundary. Aerial images show land use activities at this site extend onto designation land within designation which could be subject to HAIL category H.

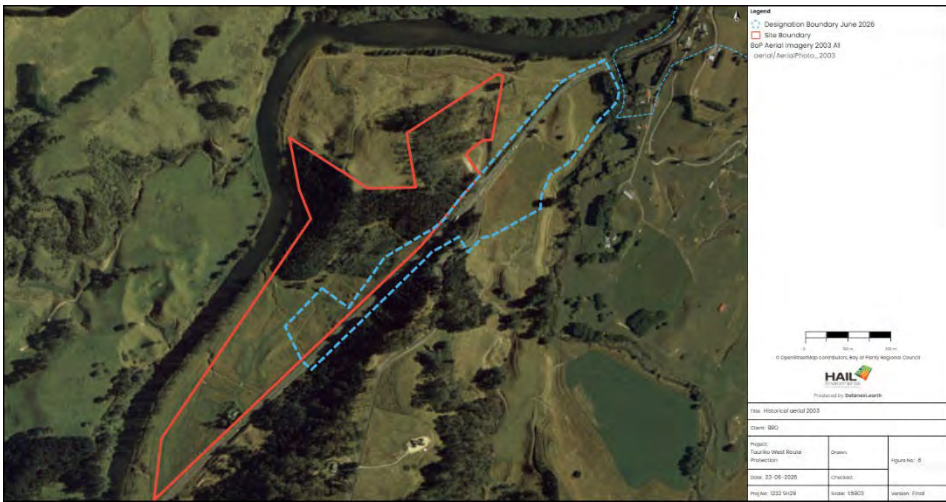
Address	1232 SH29
Site reference	69
Legal Description	Section 2 SO 449836
Owner	s9(2)(a)
Site area (ha)	1.91
Current land use	Commercial business – portion extends east onto and within designation boundary
Certificate of Title	582336
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	E1, I
Previous land uses	 1950 – Pastoral grazing  1970 – Land is thickly vegetated within designation.



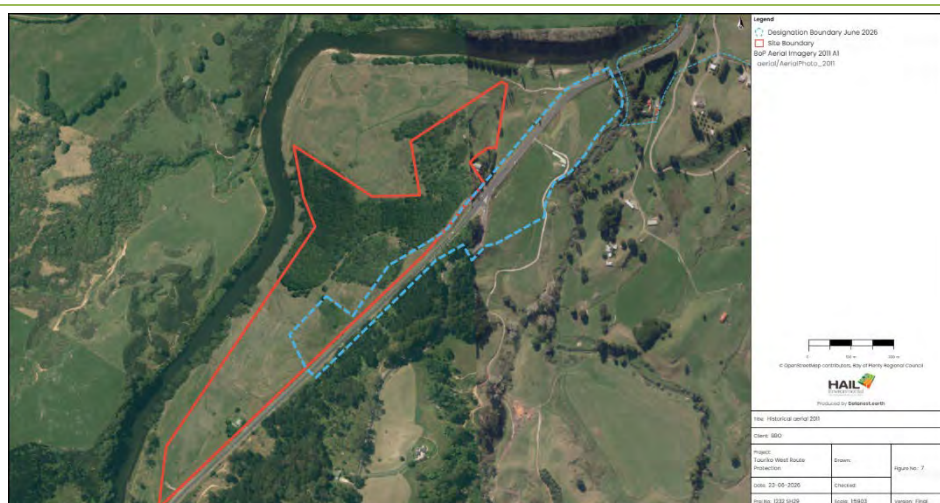
1986 – Dwelling in south of site, outside designation.



1994 - No change.



2003 - No change



2011 – No change

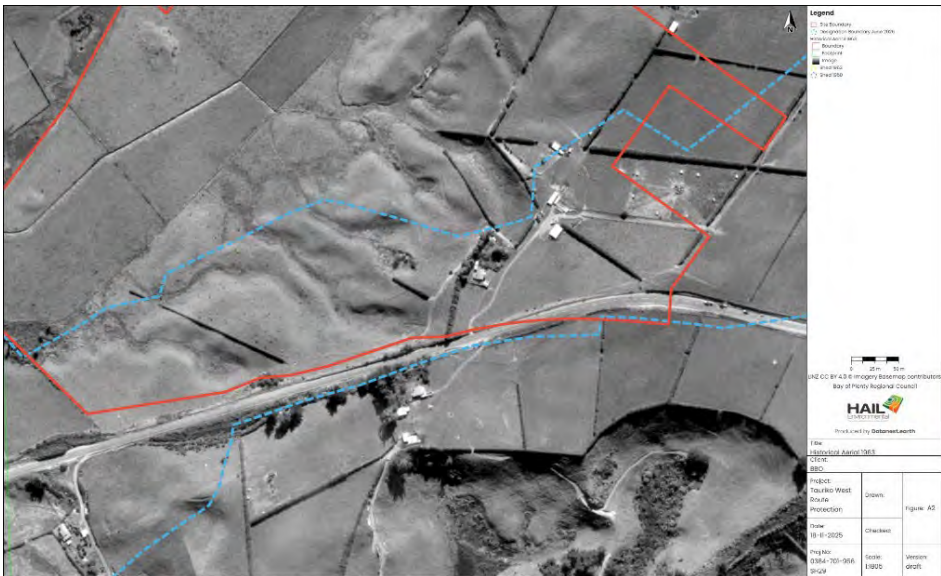


2017 – No change



2025 - No change

Previous investigations	None completed
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Potential ACM and lead impacts around existing dwelling, but this is well outside the designation.

Address	956 State Highway 29, Tauriko
Site reference	1
Legal Description	Lot 4 DP 512150
Owner	s9(2)(a)
Site area (ha)	32.97
Current land use	Farmland
Certificate of Title	788676
Property file summary	Not requested
Consents	23586.0.01-DC Discharge dairy effluent to soakage/pasture. Expired June 2021.
HAIL ID	Not on LUR
HAIL land uses	A17, I, E1, G3
Previous land uses	 1950 - Pastoral grazing, dwelling and two sheds, one is possibly a dairy shed  1963 - Addition of two hay sheds in the north



1977 - No change



1992 - No change



2003 - No change



2011 - Dwelling removed, firewood business in location of former dwelling, Cropping in the southeast inside designation.



2015 – Crops planted in eastern portion



2025 - Cropping in southeast

Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Potential fuel storage, potential land filling, potential ACM and lead impacts. Persistent pesticide Impacts from modern day cropping unlikely.

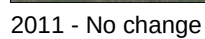
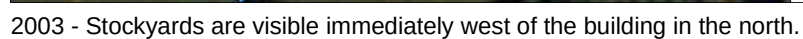
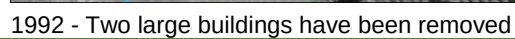
Address	236 Kaweroa Drive
Site reference	2
Legal Description	Lot 1002 DP616167
Owner	Not available
Site area (ha)	2
Current land use	Subdivision, commercial.
Certificate of Title	1233031
Property file summary	Not requested
Consents	No resource consents
HAIL ID	LUR-TGA-01006
HAIL land uses	E1
Previous land uses	1950 - Pastoral grazing with two sheds in the north, animal shelters in the paddock (central-east), and a hay barn in the southeast. 1963 - Shed alterations / additions in the north, sheds now appear as 'one' large shed and a smaller shed directly east.



1970 - Addition of three-four large sheds in the north, understood to be poultry houses. The shed in the east appears part of a dairy, overlaps into the site from the neighbouring property.



1986 - Addition of a rectangular shed in the north, south of the existing sheds.



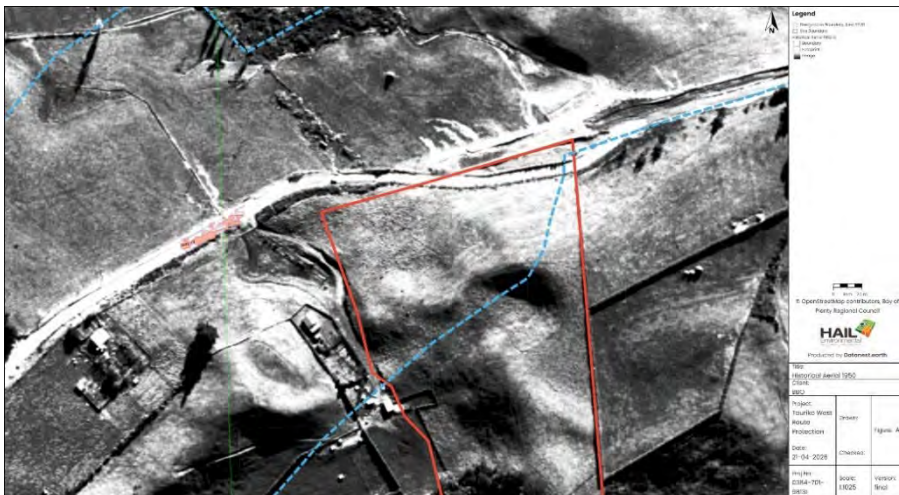


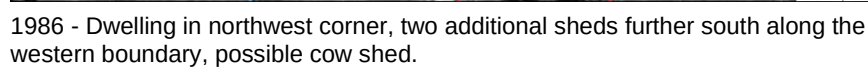
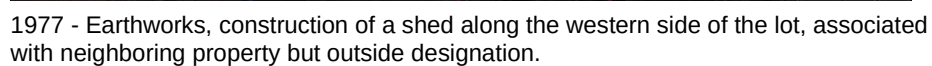
2017 - No change.



2025 - All buildings have been removed and reworked as part of subdivision

Previous investigations	Focus Environmental DSI, 2018.
Site inspection	Not inspected
Adjoining land use	Rural residential
Summary of potential HAIL land use(s)	Presence of asbestos - suitable for commercial land use

Address	9813L State Highway 29
Site reference	3
Legal Description	Lot 2 DPS 40591
Owner	s9(2)(a)
Site area (ha)	1.3
Current land use	Pastoral with rural residence within designation
Certificate of Title	SA40A/597
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	E1, I
Previous land uses	 1950 - pasture  1963 – No change





1994 - One of the sheds on the western boundary has been removed.



2003 - No change, vegetation established in south of site.



2011 - No change

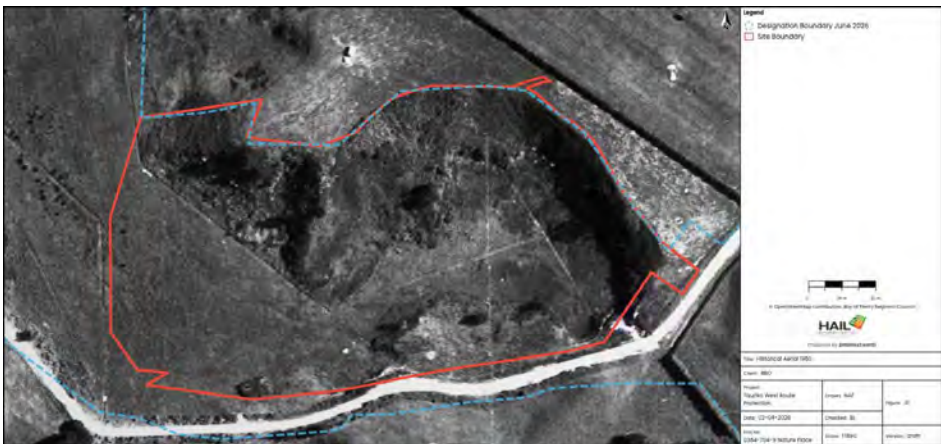


2020 - Apparent cattle shed on the western boundary



2025 - No changes

Previous investigations	Aurecon, 2017
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Potential ACM and lead impacts around current and former buildings.

Address	9 Nature Place, Greerton
Site reference	4
Legal Description	Lot 2 DPS 89978
Owner	s9(2)(a)
Site area (ha)	7.39
Current land use	Clean fill facility
Certificate of Title	SA71A/856
Property file summary	Not requested
Consents	66773.0.02 DC – multiple consents expired June 2021. RM22-0242-DC.01, RM22-0242-WT.01, RM22-0242-LC.01, RM22-0242-LC.01 related to cleanfill discharges expires October 2032.
HAIL ID	LUR-TGA-00217
HAIL land uses	A18, G5
Previous land uses	 1950 - Pastoral  1963 - Activity in the eastern portion associated with adjacent timber mill.



1977 - Activity in the east has ceased. Mill no longer present adjacent to site.



1986 - No change



1992 - Vegetation in the northwestern portion cleared. Some recent earthworks apparent.



2003 - The western portion of the site contains two large and three small ponds. Another pond is in the centre of site. A building has been constructed in the south-eastern corner of site, along with multiple smaller structures built across the central area. The smaller structures are likely aviaries, with the 11 September 1995 certificate of title listing Mark Paterson as an aviarist. Earthworks are being undertaken in the base of the gully in the east of site adjacent to the entrance trackway.



2011 - Multiple stockpiles of material can be seen in the base of the gully in the east of the site.



2015 Significant earthworks are seen to be undertaken at the head of the gully in the east of the site, and the former paddock in the west. Multiple structures removed across the site. The large central building remains. The centre of site can be seen to be used for storage of materials.

	 2019 - Further earthworks have been undertaken in the western paddock. The eastern end of site appears to contain stockpiles of asphalt millings.
	 2025 - Area of stockpiles is now capped/levelled, presumably the waste is buried beneath.
Previous investigations	PSI completed in 2021 by HAIL Environmental
Site inspection	Not inspected
Adjoining land use	Residential/commercial properties
Summary of potential HAIL land use(s)	Pastoral until the 1980s, sawdust stockpiled in corner of site from 1960s. Site earth worked in 1990s with ponds and small buildings, commercial from 2000s. HAIL Environmental identified potentially contaminated sawdust disposed at the site (Ref: HAIL3). Contamination from the site may extend onto nature place.

Address	800 R SH 29 (also 7800 and 7844)
Site reference	5
Legal Description	Lot 1 DP 310037
Owner	s9(2)(a)
Site area (ha)	32.89
Current land use	Orchard, rural residential, pastoral.
Certificate of Title	39555
Property file summary	The property was a dairy farm from 1978. The original dwelling on LOT 2 is noted to be 70 - 80 years old. The property had 15 acres of kiwifruit; 20 acres of mixed citrus and the balance of 65 acres planted with crops. Property files show: A building permit was granted to erect a house in 1978. Fibrous plaster and exterior asbestos sheeting are noted in building specifications. In 1979, a building permit was granted for a shed, farm building and proposed cool store, packing shed and fruit shop. In 1998, building consent was granted for additions to the existing house. In 2004 building consent was granted for an additional dwelling (Ref: Aurecon).
Consents	RM24-0613. Disturb and remediate contaminated land, and discharges of contaminants to land, expires March 2040.
HAIL ID	LUR-TGA-00558
HAIL land uses	A10, F7, I, E1
Previous land uses	 1950 - Dwelling near roadside. Building/structure west of the dwelling, just inside designation. Additional buildings, sheds and earthworks are noted on the farm but outside designation.



1963 – Addition of two sheds and possible sheep yards and dwelling in south of site, inside designation.



1977 - Kiwifruit planted over half of the property. Hayshed within designation has been removed and additional buildings added.



1986 - Orchards are well established. Some buildings have been removed and additional buildings constructed, including a pack house near roadside.



2003 - No change

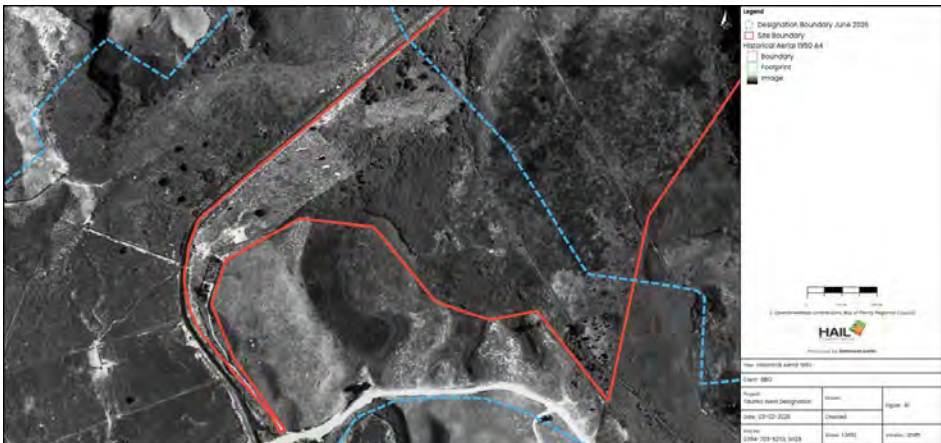


2011 - No change



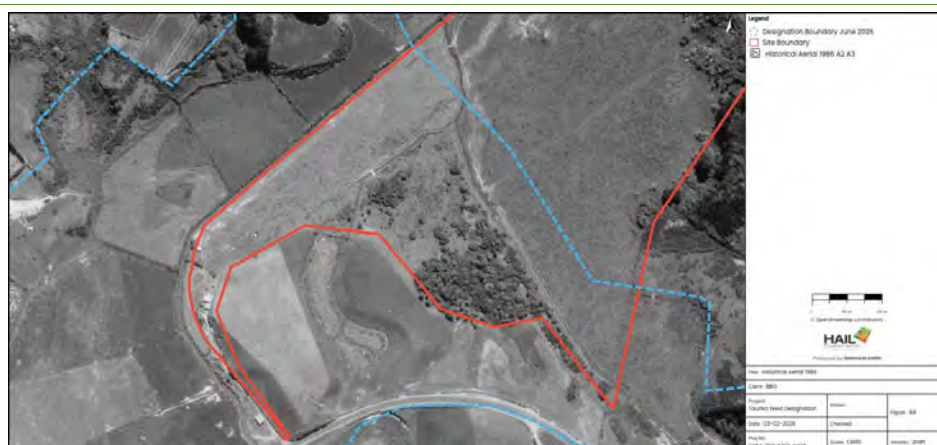
2020 - No change

	 2025 – The northern area within designation is being earthworked. Sheds on eastern boundary (adjacent to 782) have been removed.
Previous investigations	Aurecon 2017. Aurecon HAIL, 2023. Ferncliffe Farm. HAIL 2024 (PSI-DSI 0362) HAIL 2025 (RAP 0362)
Site inspection	Not inspected
Adjoining land use	Rural land
Summary of potential HAIL land use(s)	Orcharding, storage of fuels and/or other chemicals, filling activities, potential ACM and lead impacts around current and former buildings. Site is currently undergoing remediation in accordance with RM22-0609-DC.01 and RC29774.

Address	6210L SH 29
Site reference	6
Legal Description	Lot 2 DP 24262
Owner	Tauranga City Council
Site area (ha)	32.11
Current land use	Residential and farmland
Certificate of Title	SA705/221
Property file summary	Not requested
Consents	Multiple consents exist for this site: RM16-0316-LC.01, RM16-0316-DC.02, RM16-0316-DC.01, RM16-0316-LC.01, 62663.0.06-LC, 62663.0.05-DC, 62663.0.04-WT, 62663.0.03-DC, 62663.0.01-LC, 62664.0.07-LC, 62664.0.06-BC, 62664.0.05-BC, 62664.0.02-BC
HAIL ID	Not on LUR
HAIL land uses	E1, I
Previous land uses	 1950 - Pastoral grazing, dwelling in west, possible animal yards north of dwelling.  1963 – A few small building structures to the north of dwelling



1977 - A shed and possible second dwelling in the south, remainder of site is pastoral



1986 – No change



1992 - No change



2003 - No change

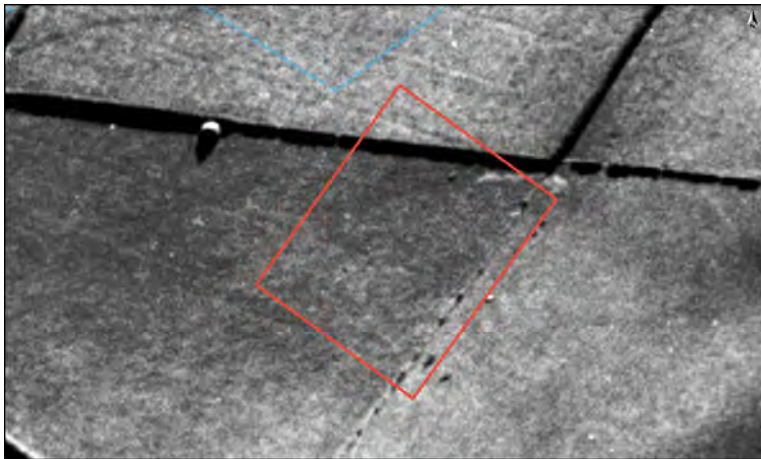


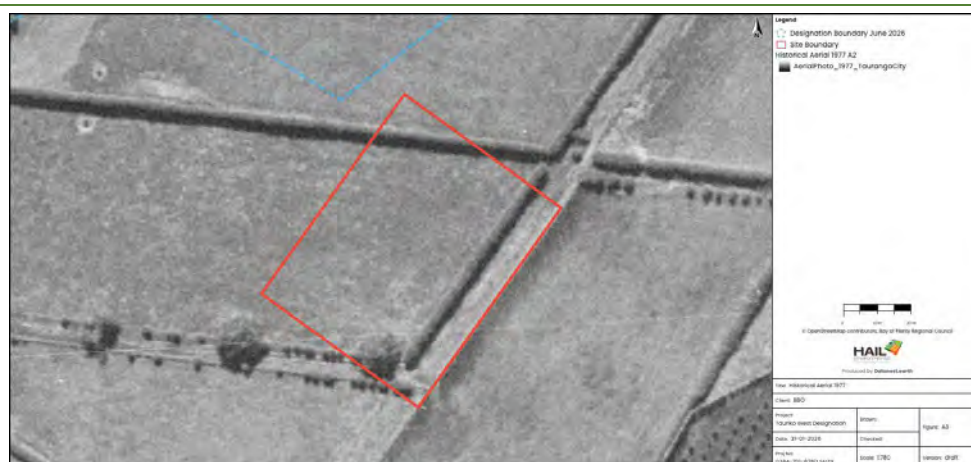
2011 - Building in south removed.



2015 – No change

	 2025 - No change
Site inspection	Not inspected – Neighbour indicated dwelling was used as P-lab before recent demolition.
Summary of potential HAIL land use(s)	Potential ACM and lead impacts around former buildings

Address	878D State Highway 29, Tauriko, Tauranga
Site reference	7
Legal Description	Lot 5 DP 512150
Owner	s9(2)(a)
Site area (ha)	0.4
Current land use	Residential
Certificate of Title	788677
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	E1, I
Previous land uses	 1950 - Pastoral  1963 - No change



1977 - No change



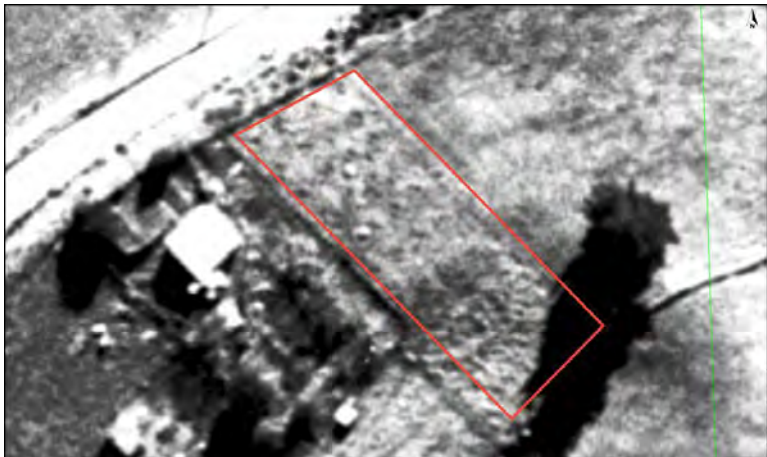
1986 - Building within south of site



1992 - No change



	 2025 - No change
Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Potential ACM and lead impacts around current and former buildings.

Address	1013 SH 29
Site reference	8
Legal Description	Lot 1 DPS 3645
Owner	CROWN
Site area (ha)	0.15
Current land use	Residential
Certificate of Title	SA1229/38
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	E1, I
Previous land uses	 1950 – Pastoral  1963 - Dwelling and shed in NW of site



1970 - Large shed in south of site.



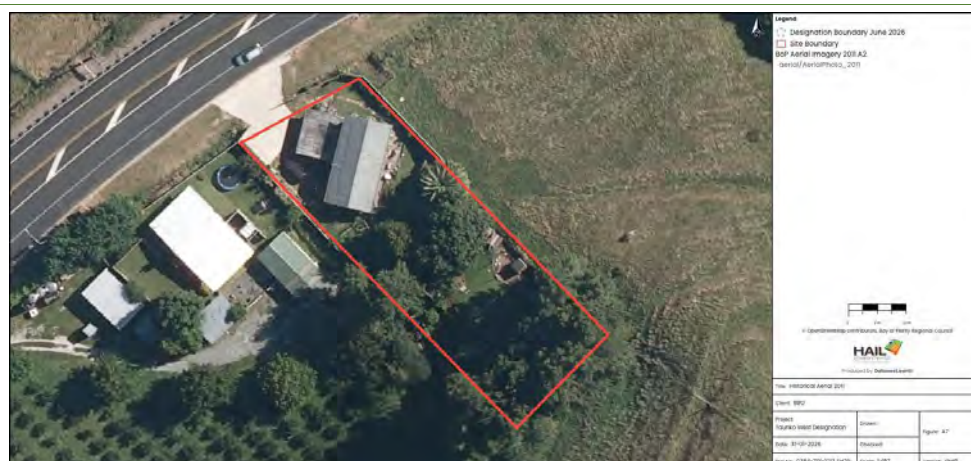
1986 - No change



1992 - Large shed in south of site has been removed.



2003 - No change

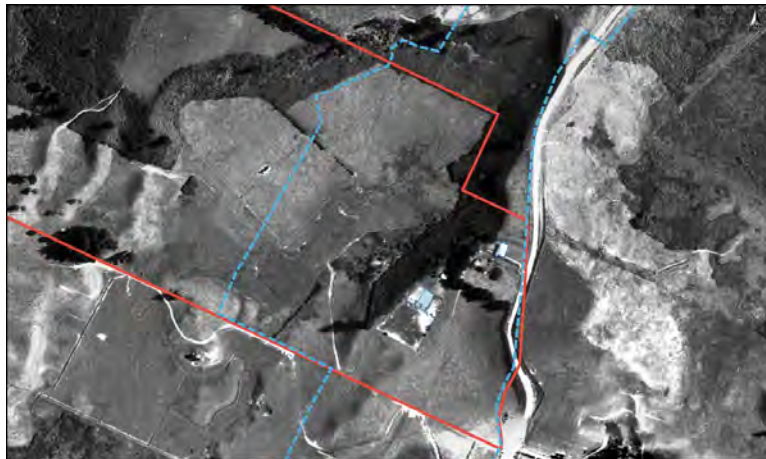


2011 - No change



2020 - No change

	 2025 - No change
Previous investigations	Aurecon, 2017
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Potential ACM and lead impacts around current and former buildings.

Address	820 State Highway 29, Tauriko, Tauranga
Site reference	9
Legal Description	Lot 7 DP 512150
Owner	s9(2)(a)
Site area (ha)	47.89
Current land use	Pastoral grazing and rural residences
Certificate of Title	788679
Property file summary	Not requested
Consents	Multiple resource consents: 68014.01-DC, RM24-0613-DC, RM24-0613.
HAIL ID	Not on LUR
HAIL land uses	A17, E1, I
Previous land uses	 1950 - The site is mostly farmland, except for a dwelling, a large shed, and two smaller implement sheds in the east.  1963 - The large shed has been removed.



1977 - A dairy shed and two effluent ponds are present in the southeast of the property, outside of the designation. A shed SW of the dwelling has been removed.



1992 - No changes



2003 - New shed between dwelling and cow shed. Effluent ponds filled in.



2011 - No change

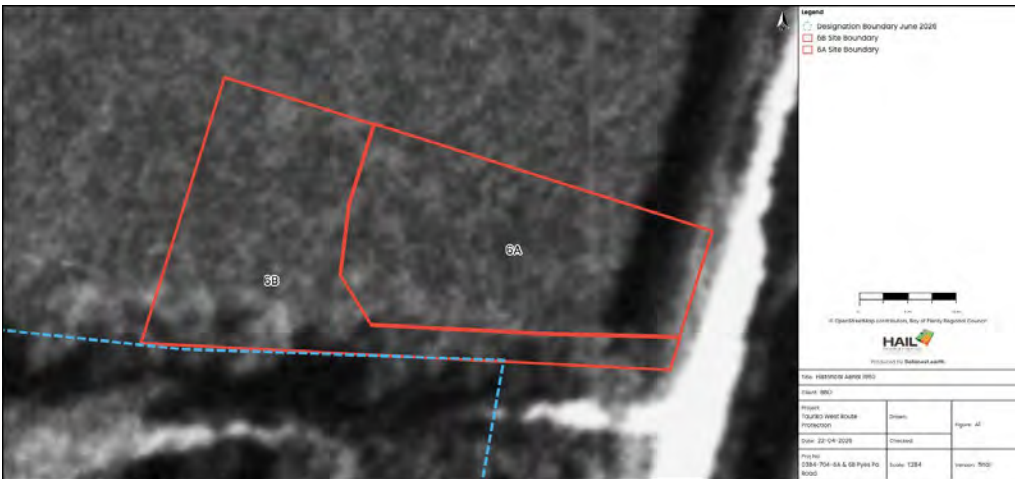


2015 - Extension to shed between dwelling and dairy.



2020 - No change

	 2025 - Cropping in paddocks next to SH29.
Previous investigations	HAIL 2024 (PSI-DSI 0362), HAIL 2025 (RAP 0362)
Site inspection	Not inspected
Adjoining land use	Rural land
Summary of potential HAIL land use(s)	Potential ACM and lead impact around current and former buildings, and potential storage of fuels.

Address	6A Pyes Pa Road, Pyes Pa, Tauranga
Site reference	10
Legal Description	Lot 1 DPS 79061
Owner	s9(2)(a)
Site area (ha)	0.57
Current land use	Commercial- Ray White Real Estate office
Certificate of Title	SA63A/86
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	I, E1
Previous land uses	 1950 - Pastoral grazing  1963 - Dwelling in centre of site.



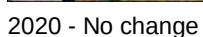
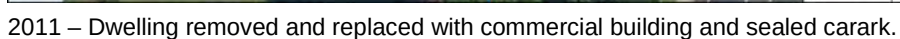
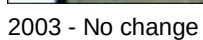
1977 - No change



1986 - No change

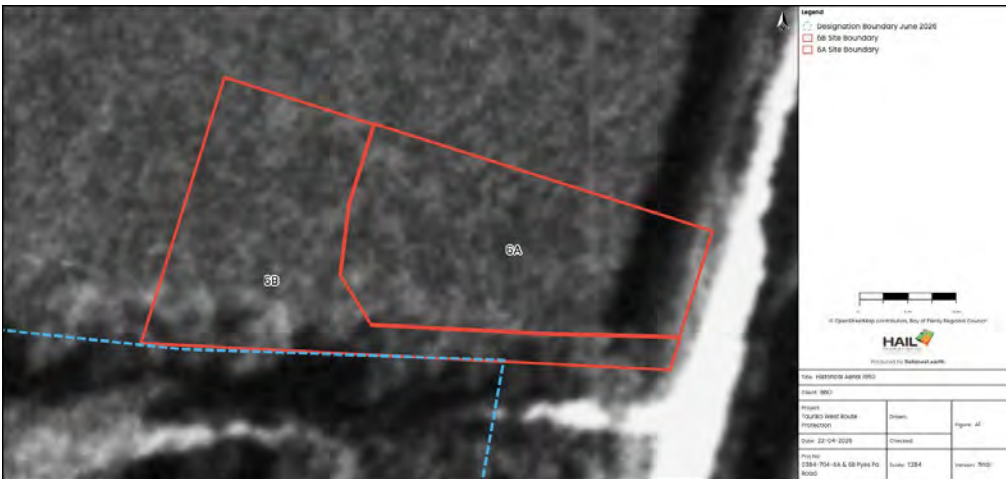


1992 - No change



	<tr> <td colspan="2">Title: SH29 Tauriko West Route Protection</td> </tr> <tr> <td>Client: HAIL</td> <td>Project: SH29 Tauriko West Route Protection</td> </tr> <tr> <td>Date: 22-04-2025</td> <td>Version: 1.0</td> </tr> <tr> <td>Author: HAIL</td> <td>Drawn: HAIL</td> </tr> <tr> <td>Check: HAIL</td> <td>Scale: 1:200</td> </tr> <tr> <td>Project: SH29 Tauriko West Route Protection</td> <td>Version: 1.0</td> </tr>	Title: SH29 Tauriko West Route Protection		Client: HAIL	Project: SH29 Tauriko West Route Protection	Date: 22-04-2025	Version: 1.0	Author: HAIL	Drawn: HAIL	Check: HAIL	Scale: 1:200	Project: SH29 Tauriko West Route Protection	Version: 1.0
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Author: HAIL	Drawn: HAIL												
Check: HAIL	Scale: 1:200												
Project: SH29 Tauriko West Route Protection	Version: 1.0												

	2025 - No change
Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Potential ACM and lead impacts around current and former buildings.

Address	6B Pyes Pa Road, Pyes Pa, Tauranga
Site reference	11
Legal Description	Lot 2 DPS 79061
Owner	s9(2)(a)
Site area (ha)	0.56
Current land use	Commercial
Certificate of Title	SA63A/87
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	E1, I
Previous land uses	 1950 - Pastoral grazing.  1963 - Small shed in NE of site, part of residential section.



1977 – No change



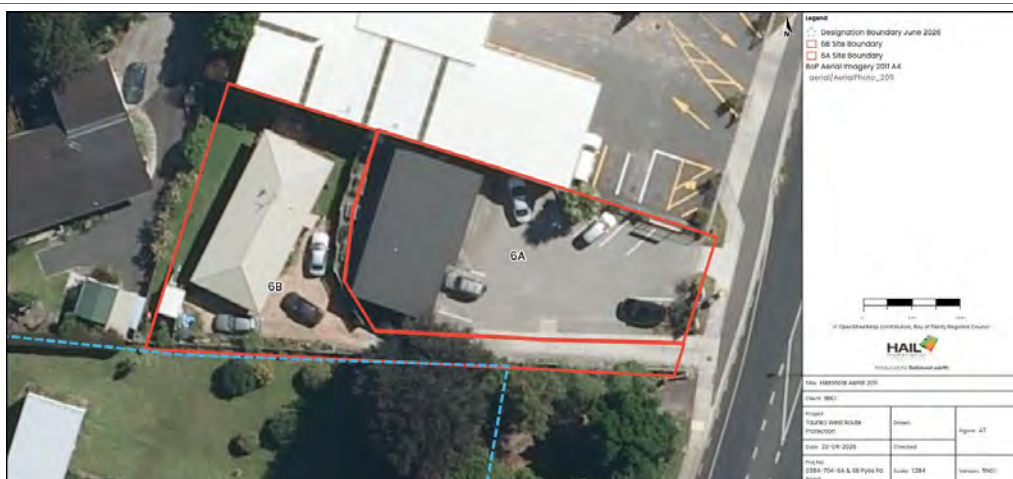
1986 - No change



1992 - No change



2003 - Shed replaced with a dwelling which occupies most of the site.



2011 - No change



2020 - No change

	 2025 - No change
Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Potential ACM and lead impacts around current and former buildings.

Address	776 State Highway 29, Tauranga
Site reference	12
Legal Description	Lot 1 DP 34421
Owner	Tauranga City Council
Site area (ha)	1.61
Current land use	Tauriko Settlers Hall with sealed parking area in the front.
Certificate of Title	SA27D/134
Property file summary	Not requested
Consents	RM24-0266-DC For the discharge of contaminants to land associated with disturbance of a contaminated site at 776 SH29 Tauriko. Expires: July 2029.
HAIL ID	Not on LUR
HAIL land uses	I, E1
Previous land uses	 1950 - Building present within the site, understood to be the community hall. Small building to the east. The rest of the site is grassed  1963 - Addition/ extension to the hall.



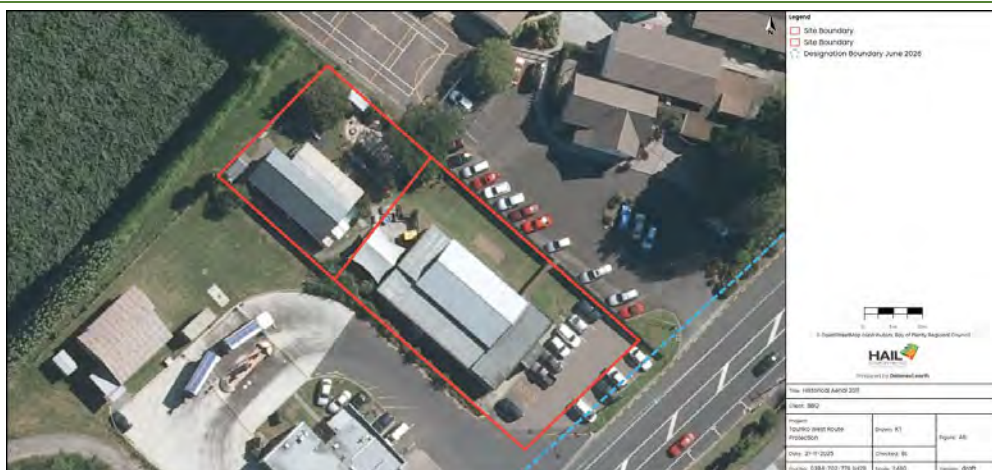
1977 - The hall appears to have been extended, and it appears the southern end of the site is sealed carpark.



1992 - Addition of a building in the north of the site.



2003 - Playground in northern corner of site.



2011 - No change.



2020 - No change



2025 - Hall has been removed, southern half of site is vacant

Previous investigations	Aurecon, 2017 HAIL 2024 (0338A CSMP-RAP)
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Potential ACM and lead impacts around current and former buildings.

Address	768 State Highway 29, Tauriko, Tauranga
Site reference	13
Legal Description	Pt Allotment 87 Te Papa Parish
Owner	CROWN
Site area (ha)	1.6
Current land use	Tauriko School
Certificate of Title	SA360/95
Property file summary	Building specifications for multiple alterations and additions which occurred in the 1970s show asbestos materials.
Consents	RM16-0359-DC.01 Discharge septic treated wastewater to a soak field. Expired 2022. RM26-0106-AP discharge septic tank treated wastewater to a soakage field. Processing.
HAIL ID	Not on LUR
HAIL land uses	A10, E1, I
Previous land uses	1950 - Dwelling and small shed in centre of site, surrounded by grass 1963 - Addition of three-four more buildings and a tennis court. Northwestern half of the site is playing area/ grass.



1977 - No change



1992 - Addition of school buildings, including residence in southern corner



2003 - Addition of more buildings in the north, removal of dwelling in south, courts in the west and paved area between most buildings.



2011 - Changes to some buildings, new pool.



2020 - No change



2025 - No change

Previous investigations	HAIL 2024 (0338A CSMP-RAP)
Site inspection	Yes, site operating as Tauriko School.

Site photographs	 Weatherboard buildings.	 Original school buildings
Adjoining land use	Pastoral, orchard, commercial site.	
Summary of potential HAIL land use(s)	Potential ACM and lead impacts around current and former buildings. Potential for agrichemical use on school playing fields.	

Address	R856 SH 29
Site reference	14
Legal Description	Lot 1 DPS 33435
Owner	s9(2)(a)
Site area (ha)	5.32
Current land use	Pastoral
Certificate of Title	SA1B/891
Property file summary	1974: Erect round haybarn. 1994: Erect dwelling; 2000: Erect studio.
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	A10, E1, I
Previous land uses	 1950 - Pastoral land use with dwelling and four sheds located in the southern corner.  1963 - New shed in the eastern corner, likely a hay barn.





2003 - No change



2011 - No change



2020 - No change

	 2025 - No change
Previous investigations	Aurecon 2017, reported potential filling in northeast corner.
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Pastoral grazing with dwellings and sheds in southeast corner since 1950- Potential ACM and lead impacts around current and former buildings. Orchard in the east from 1970. Possible stockyards on the south-east corner.

Address	880 SH29
Site reference	15
Legal Description	Lot 3 DP 512150
Owner	s9(2)(a)
Site area (ha)	0.54
Current land use	Residential/commercial
Certificate of Title	788675
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	A10, E1, F4, I
Previous land uses	1950 – Dwelling in centre of site and shed in the west. 1963 – Addition of four small sheds. Area surrounding the residential section is pastoral grazing.



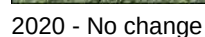
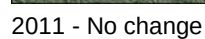
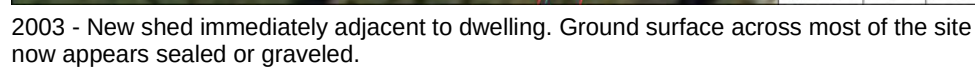
1977 - Addition of a garage and small shed near dwelling. Orchard surrounds the site, and overlaps into the north, south and west boundaries of the site.



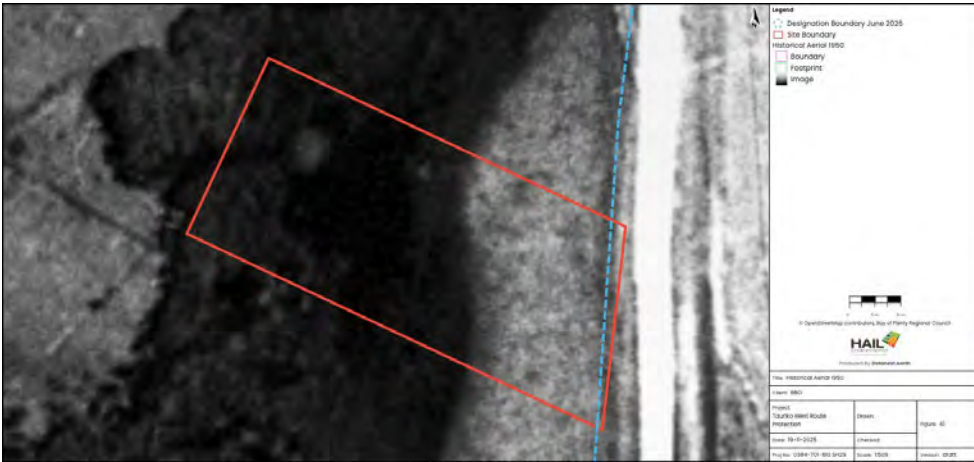
1986 - No change



1992 - Large shed erected in west of site, and large shed in the east.



	 2025 - No change
Previous investigations	None undertaken
Site inspection	Yes
Adjoining land use	Orchard (A10) - South
Site photos	 Fiberboard cladding on site building - potential ACM.  A burning pit was observed - potential presence of PAHs and heavy metals.  Galvanised workshop. Sealed ground surface.  Lock up garage/ workshop, sealed ground surface.
Summary of potential HAIL land use(s)	Site has been residential with sheds since the 50/60s – potential for ACM and lead impacts around current and former buildings. Orchard from neighbouring site overlaps into the property. A burning pile and a workshop were identified during the site visit.

Address	810 State Highway 29, Tauriko, Tauranga
Site reference	16
Legal Description	Pt Lot 1 DPS 4793
Owner	s9(2)(a)
Site area (ha)	0.3
Current land use	Residential
Certificate of Title	SA1488/88
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	A10, E1, I
Previous land uses	 1950 - Pastoral  1963 - Possible glasshouse in east.

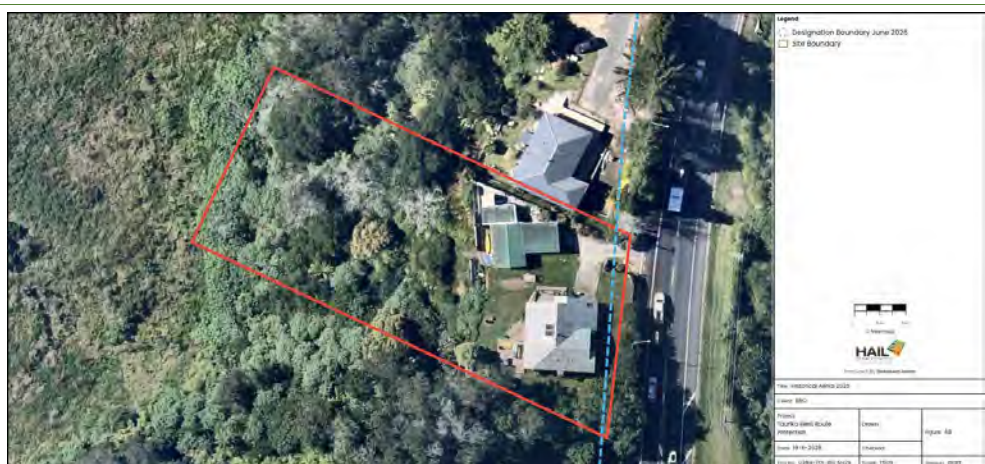




2011 - No change



2020 - Extension to shed in north.



2025 - No change

Previous investigations	Aurecon 2017
Site inspection	Yes
Adjoining land use	Residential

Site photos		
	Photo from front of dwelling. ACM in soffit sheets, painted weatherboard.	Looking towards dwelling and garage from road
		
	Garage within site, clad in corrugated iron	Open old building within site.
Summary of potential HAIL land use(s)	Residential since 1950s, potential for ACM and lead impacts around current and former buildings. Potential glasshouse formerly within site- possible impacts from persistent pesticides.	

Address	894 SH29
Site reference	17
Legal Description	Lot 1 DPS 82791
Owner	s9(2)(a)
Site area (ha)	1.585
Current land use	Rural residential
Certificate of Title	SA65D/74
Property file	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	A10, E1
Previous land uses	1950 - Pastoral grazing, unsealed road travels through south of site. 1963 - Road is now sealed.



1977 - Road has been removed. Small amount of neighboring orchard in southeast of site. .



1992 - Dwelling and garage in south of site. Orchard removed and shed in its place



2003 - Swimming pool north of dwelling



2011 - No change



2020 - No change



2025 - No change

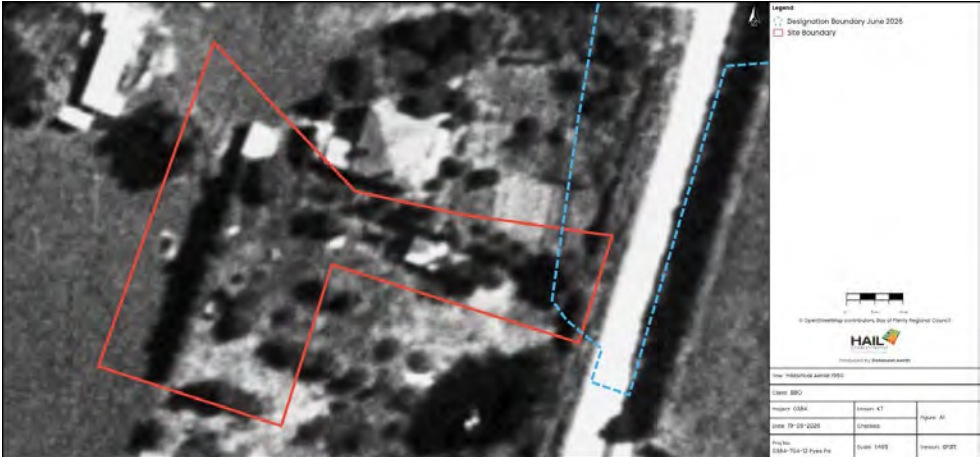
Previous investigations

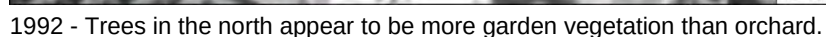
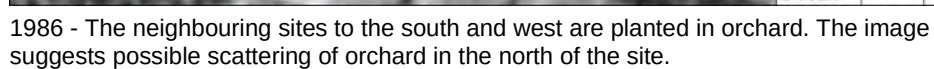
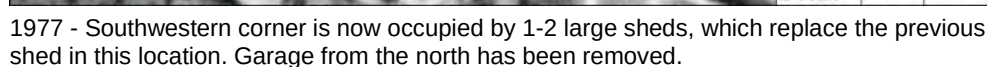
None undertaken

Site inspection

Yes. Small shed in south was observed to contain likely ACM.

Site photographs		
	Weathered shed in southeast corner of site.	
		
	Unpainted brick dwelling.	Pastoral grazing surrounds dwelling.
Summary of potential HAIL land use(s)	Pastoral until 1970s when small amount of neighbouring orchard intercepts site. Orchard removed in 1990s and replaced with dwelling and sheds. Potential persistent pesticide impacts. Potential ACM impacts around current and former buildings.	

Address	12 Pyes Pa Road, Pyes Pa, Tauranga
Site reference	18
Legal Description	Lot 1 DPS 85647
Owner	s9(2)(a)
Site area (ha)	0.24291316
Current land use	Residential
Certificate of Title	SA68A/50
Property file summary	Not requested
Consents	No resource consents
HAIL ID	LUR - TGA - 01004 – HAIL activities outside boundary
HAIL land uses	A10, F8
Previous land uses	 1950 - Part of residential section, domestic orchard.  1963 - Garage associated with dwelling in the north, large shed / workshop in the south. East of the site is driveway and garden.





2003 - Orchard surrounding the property has been removed and replaced with dwellings. North of the site remains vegetated.

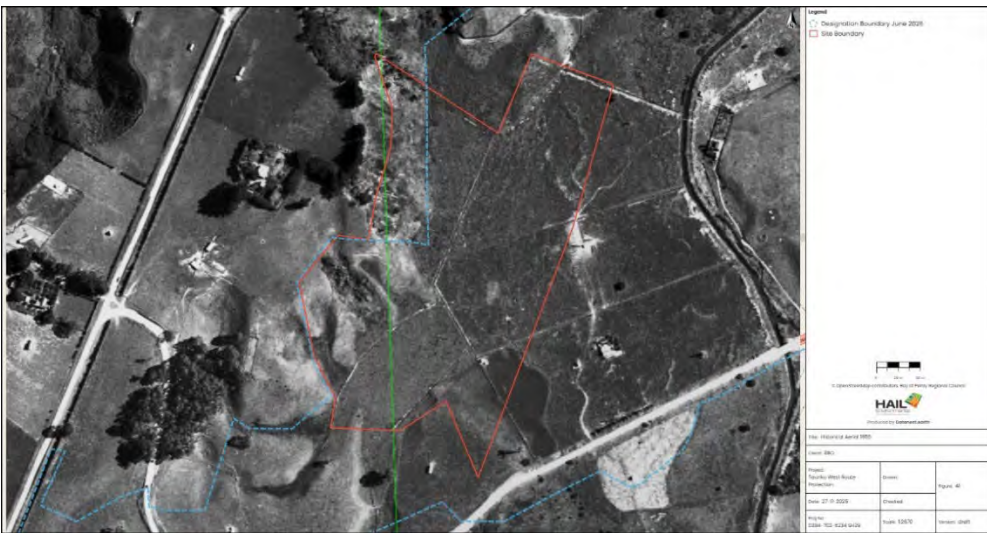
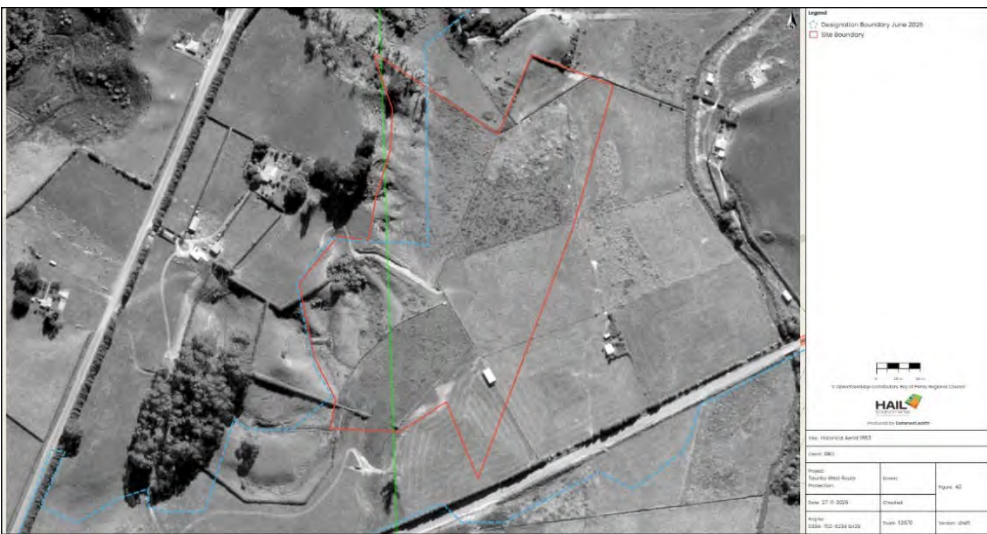


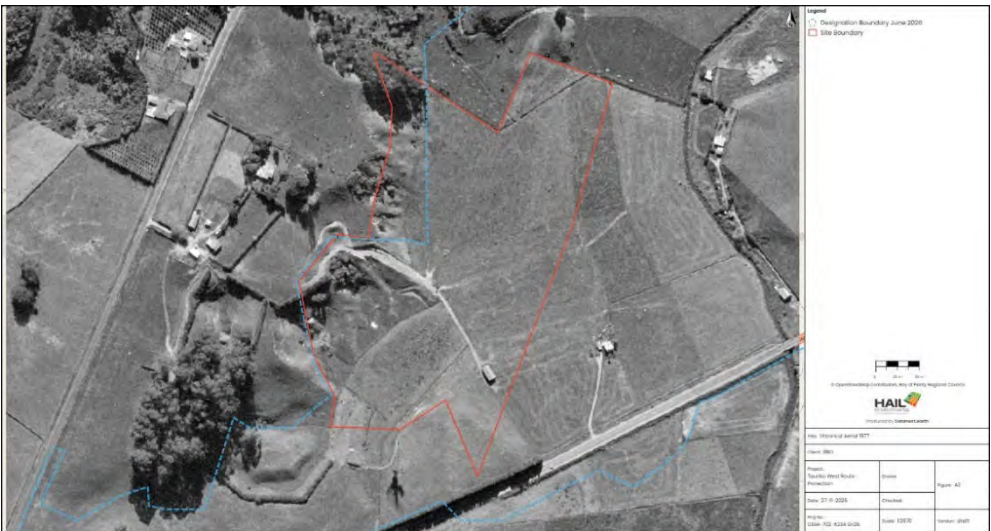
2011 - One shed in the southwest has been removed.



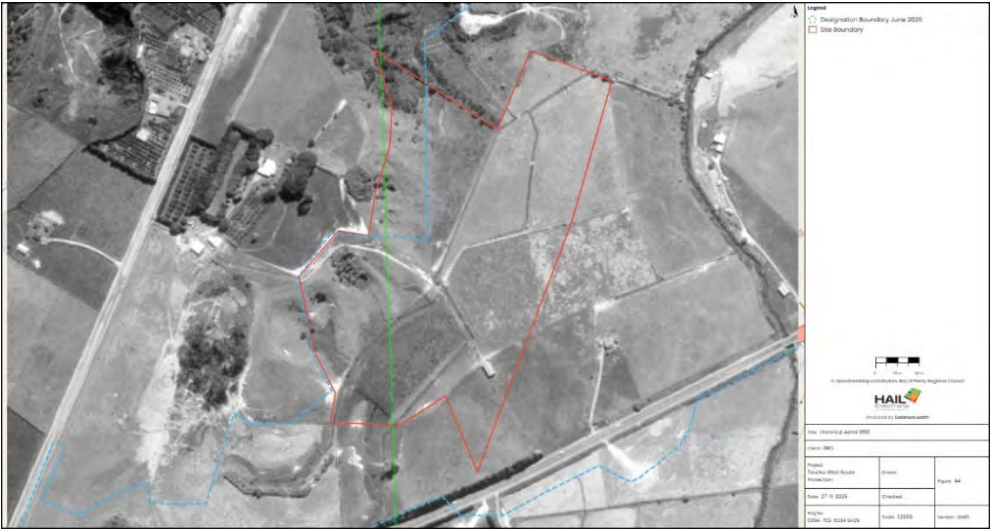
2025 - No change

Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Orchard within site during the 1950s although this could have been domestic, and then again in the north of the site during the 1970/80s. Both areas of orchard were outside of the designation. The WBOPRC LUR lists a former use as a transport depot, most likely linked to building / workshop in the west of the site, which is also well outside the designation.

Address	6234L SH 29
Site reference	37
Legal Description	Pt Lot 32 DPS 71310
Owner	Tauranga City Council
Site area (ha)	9.366
Current land use	Pastoral grazing
Certificate of Title	SA57B/508
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	No HAIL activities identified
Previous land uses	 1950 Pastoral grazing, hay barn in the south.  1963 – No change



1977 – No change



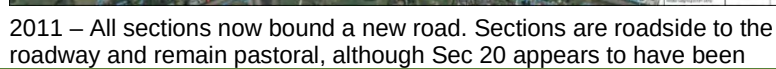
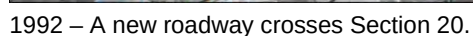
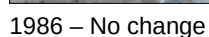
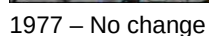
1992 – No change



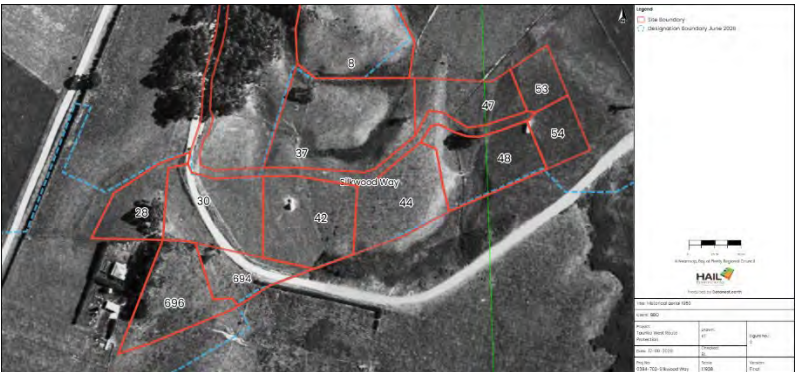
2011 – No change

	 2025 – No change
Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	No potential HAIL activities identified

Address	Cambridge Road segregation strips
Site reference	38
Legal Description / Certificate of Title / area (ha)	Section 14-15 SO 336781 / 288329 / 0.0097 Section 16 SO 336781 / 288330 / 0.0046 Section 17 SO 336781 / 288330 / 0.0034 Section 18 SO 336781 / 288329 / 0.0059 Section 19 SO 336781 / 288330 / 0.0123 Section 20 SO 336781 / 395442 / 0.0025 Section 24 SO 336781 / 395442 / 0.0035 Section 40 SO 336781 / 288328 / 3.71 Section 45 SO 336781 / 395440 / 1.0 Section 46 SO 336781 / 395442 / 0.0012 Section 47 SO 336781 / 395442 / 0.0029 Section 55 SO 336781 / 288330 / 0.0007 Section 56 SO 336781 / 395442 / 0.0020
Owner	s9(2)(a) [REDACTED]
Current land use	Cambridge Road segregation strip / roadside berm
Property file summary	Not requested
Consents	Sec 14 & 15: RM22-0609-BC.01 Disturbance of the bed of wetland for the associated construction of stormwater wetlands. Expires 2058, RM22-0609-DC.03 permanently divert and discharge stormwater via a constructed stormwater wetland. Expires 2058.
HAIL ID	No HAIL activities identified
HAIL land uses	No HAIL activities identified
Previous land uses	 1950 – Pastoral across all sections. Sec 15, 17 and 39 abut a man-made drain.



	sprayed (dying off) and Sec 46 appears to have been earth worked.
	 2025 – Earthworks and a new roadway are now present along Sec 15 and 17, Sec 39 has been earth worked and appears to have a small stockyard, and Sec 18 and Sec 20 have been terraced.
Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	No potential HAIL activities identified

Address	28, 30, 37, 42, 44, 47, 48, 53 and 54 Silkwood Way 694 and 696 SH 29, 8 Oakridge Place, and Silkwood Road segregation strip
Site reference	39
Legal Description / Certificate of title / area	Lot 33 DDPS 71310 / SA57B/509 / 0.35 Lot 27 DPS 71310 / SA57B/503 / 0.63 Lot 30 DPS 71310 / SA57B/506 / 1.068 Lot 28 DPS 71310 / SA57B/504 / 0.684 Lot 29 DPS 71310 / SA57B/505 / 0.56 Lot 1 DP 334849 / 142817 / 0.392 Lot 4 DP 334849 / 142820 / 0.57 Lot 2 DP 334849 / 142818 / 0.2 Lot 3 DP 334849 / 142819 / 0.24 Lot 16 DPS 71310 / SA57B/492 / 1.43 Lot 5 DP 334849 (segregation strip) / 6699563 / 0.25
Owner	s9(2)(a) [Redacted] [Redacted] [Redacted] [Redacted] [Redacted] [Redacted] [Redacted] [Redacted] [Redacted] [Redacted]
Current land use	Residential and roadway
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	G3 on 47 Silkwood Way
Previous land uses	 1950 - Pastoral land. A roadway travels through 30 Silkwood way and 694 SH29, and a haybarn is present on 54 Silkwood Way.



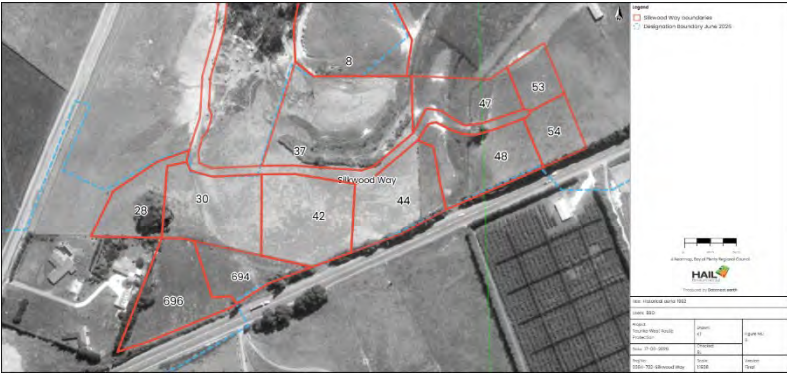
1963- Roadway has gone and haybarn has been removed



1977 – No change



1986 – No change



1992 – No change



2003 – The area has been developed for residential land use. Dwellings and sheds are present on all sites except 47, 48, 53 and 54 Silkwood Way, and 8 Oakridge Place. Roadway is present a 6699563 (Silkwood way segregation strip)

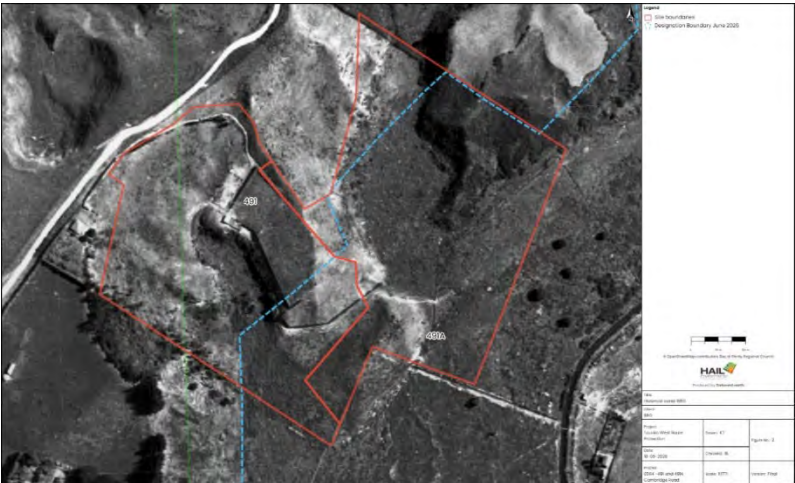
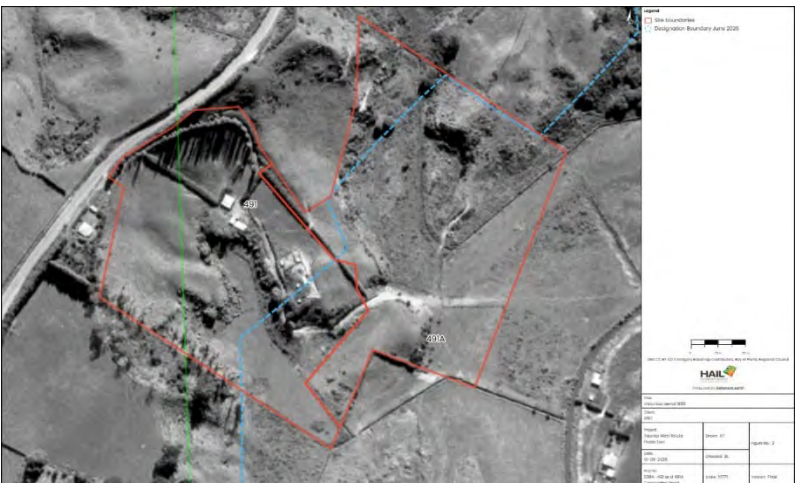


2011 – Roadway extends to dwellings now present at 47, 48, 53 and 54 Silkwood Way. Sites have established gardens.



2025 – Large pond on 47 Silkwood Way is no longer visible, may be dry, or may have been backfilled.

Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Potential filling on 47 Silkwood Way, where pond has been infilled.

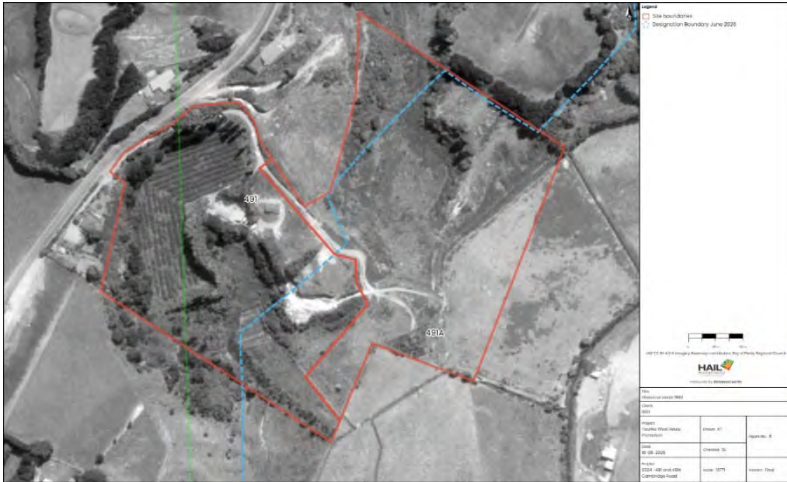
Address	491 and 491A Cambridge Road
Site reference	40
Legal Description	Lot 2 DPS 60348, Part Lot 3 DPS 60348
Owner	s9(2)(a)
Site area (ha)	4.18, 4.80
Current land use	Residential and pastoral
Certificate of Title	SA49B/296, SA49B/297
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	A10
Previous land uses	 1950 – Pastoral grazing. Two sheds in north of 491, but outside designation.  1963 – Sheds / animal yards added on 491, just outside designation. One small shed within designation.



1977 – Sheds from 1963 removed.



1986 – Orchard in north of 491, but outside designation. Earthworks in south of 491, within designation.



1992 – No change



2003 - Orchard removed on 491, new dwelling / residential area in north of site, outside designation. New dwelling on 491A, within designation.

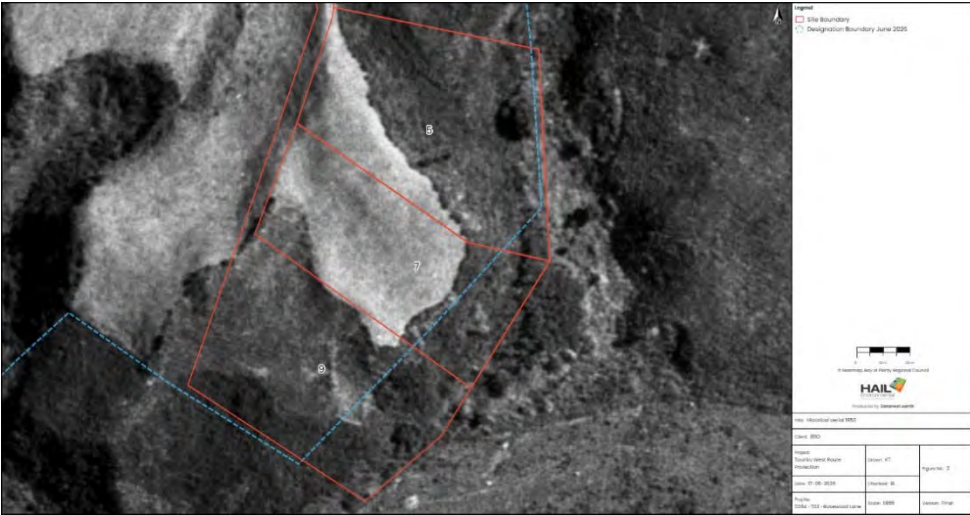
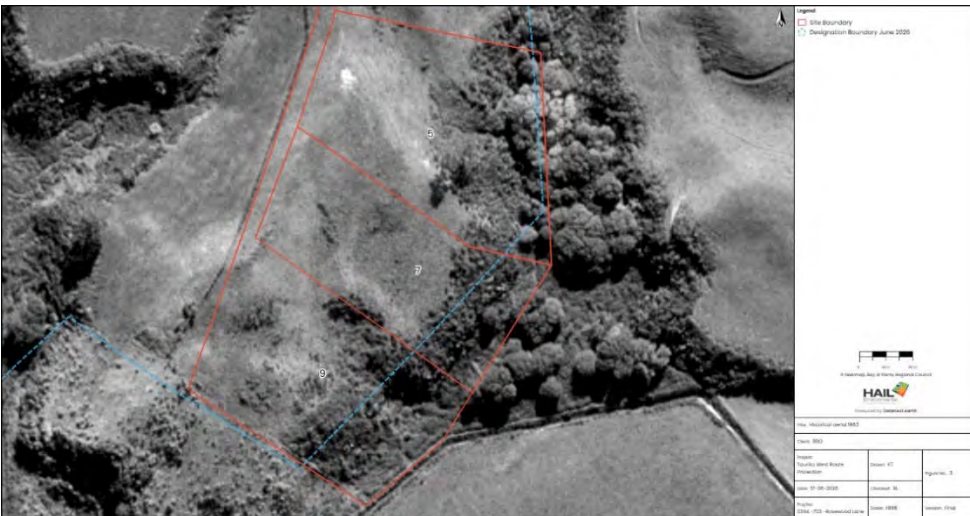


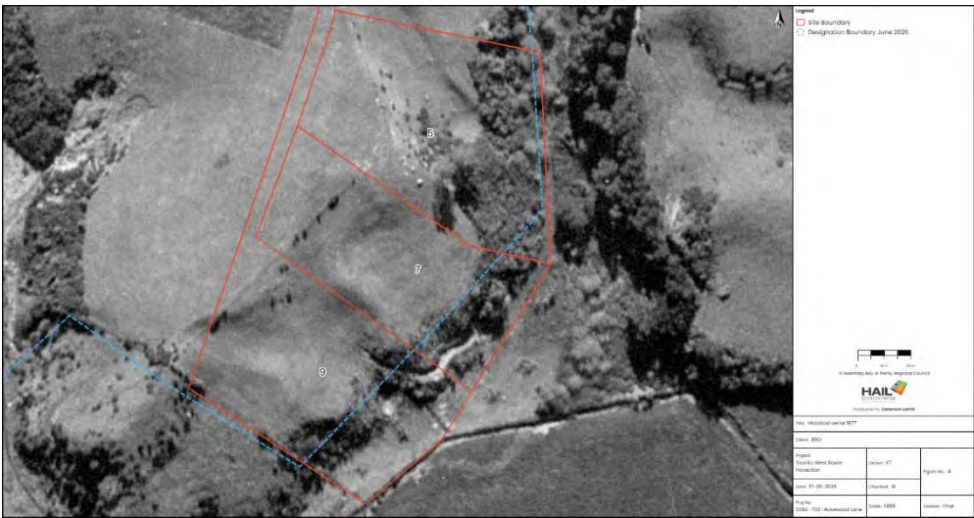
2011 – Horse yards on 491A.



2025 – Dwelling on 491A removed, two sheds present in pasture on 491A.

Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Orchard previously in north of 491, but well outside designation. Buildings on 491A within designation are of recent construction, and dwelling has since been removed. No potential HAIL activities identified.

Address	5, 7, and 9 Rosewood Lane
Site reference	41
Legal Description	Lot 5 DPS 85480, Lot 6 DPS 85479, Lot 7 DPS 85479
Owner	s9(2)(a) [REDACTED] [REDACTED] [REDACTED]
Site area (ha)	0.57, 0.46, 0.7
Current land use	Residential
Certificate of Title	SA67C/885, SA67C/886, SA67C/887
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	No HAIL activities identified
Previous land uses	 1950 – Pastoral grazing  1963 - No change



1977 – No change



1992 – No change



2003- Dwellings in all sections

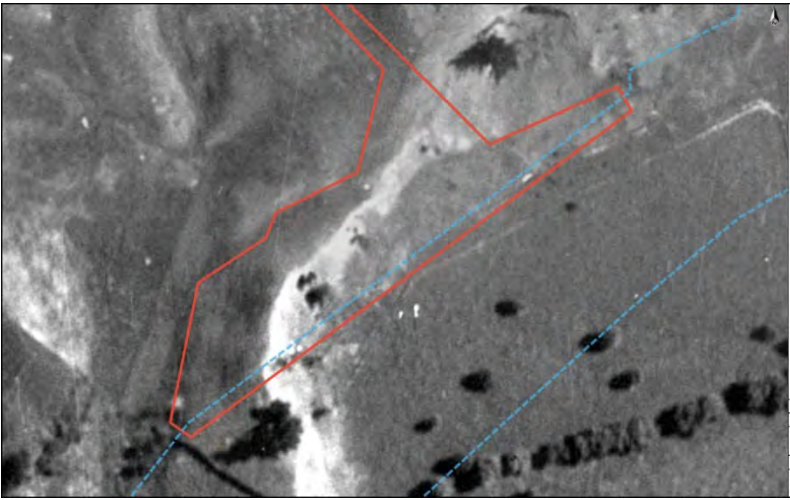
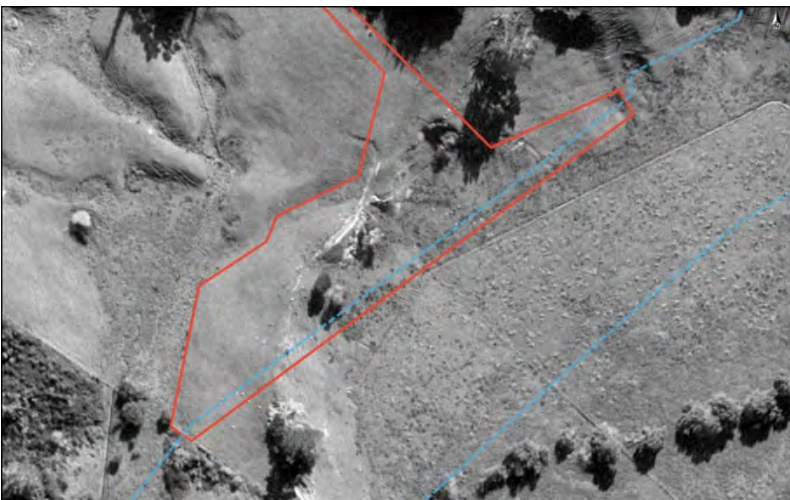


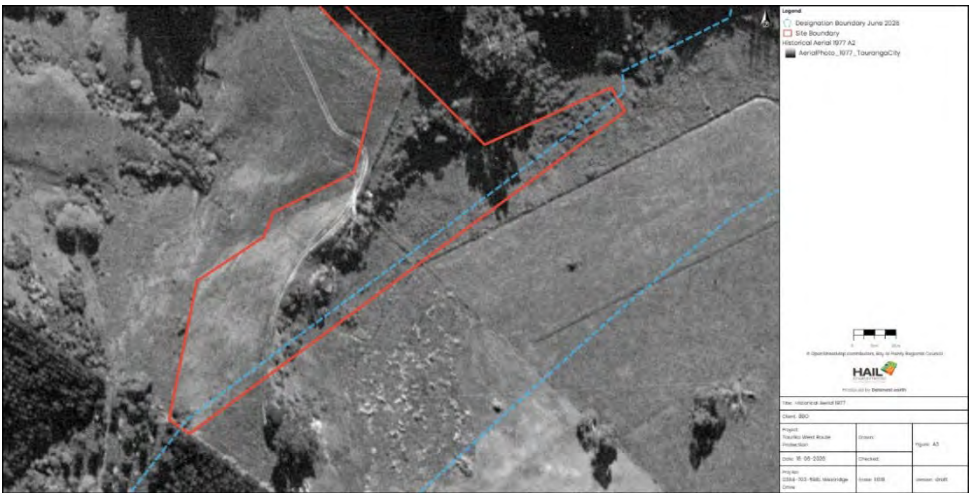
2011 – No change



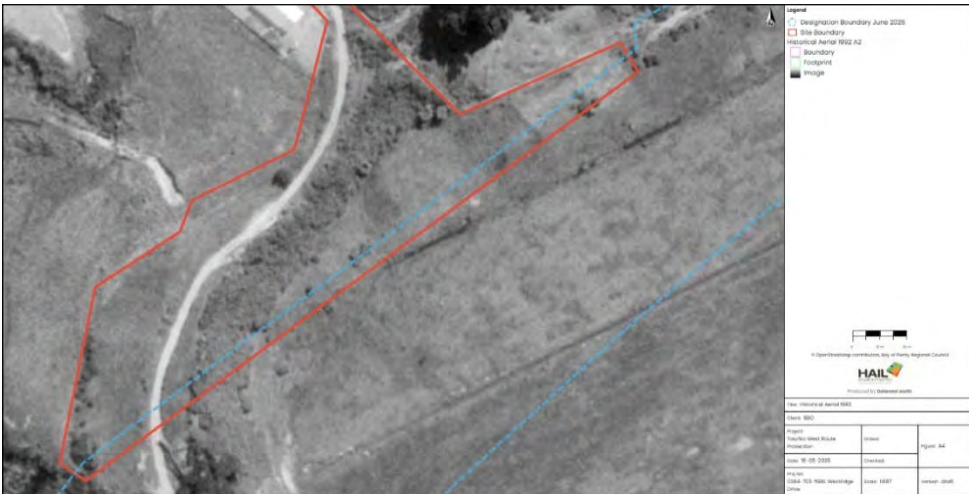
2025 – No change

Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	No potential HAIL activities identified in designation portion

Address	598L Westridge Drive
Site reference	42
Legal Description	Pt Lot 16 DPS 53732
Owner	Tauranga City Council
Site area (ha)	1.5
Current land use	Native vegetation
Certificate of Title	SA48D/52
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	No HAIL activities identified
Previous land uses	 1950 - Pastoral  1963 - No change



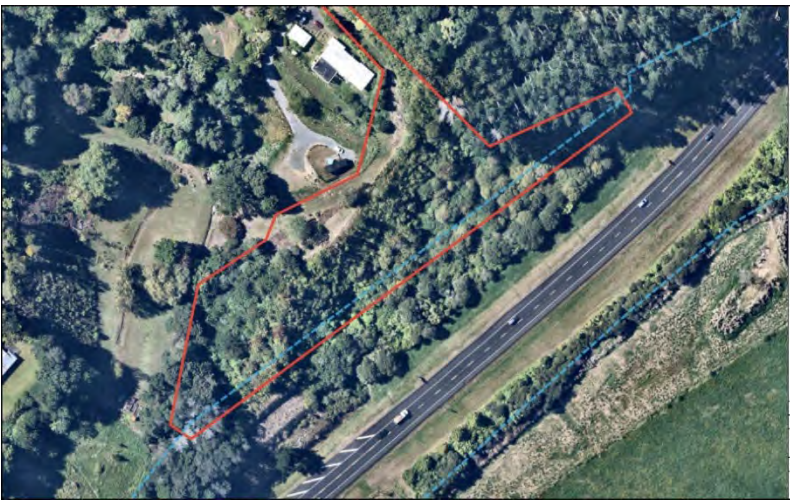
1977 – No change

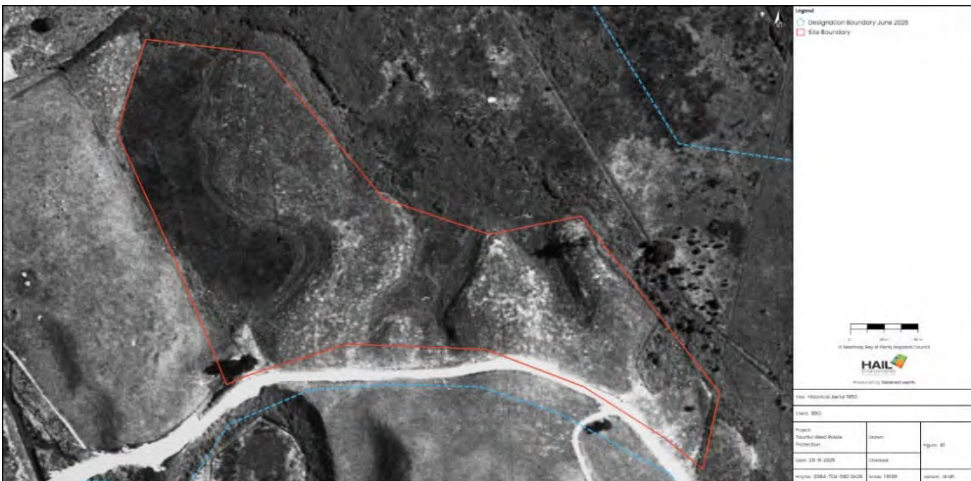


1992 – No change



2011 – Thick vegetation

	 2025 – No change, but earth worked driveway along the northwest boundary.
Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	No potential HAIL activities identified

Address	580 State Highway 29A, Tauriko, Tauranga
Site reference	43
Legal Description	Lot 6 DPS 47965
Owner	Tauranga City Council
Site area (ha)	5.6
Current land use	Rural residential and grazing land
Certificate of Title	SA42D/235
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	No HAIL activities identified
Previous land uses	 1950 – Pastoral grazing  1963 – No change



1977 – No change



1992 – No change



2003 – Dwelling and shed in far east.

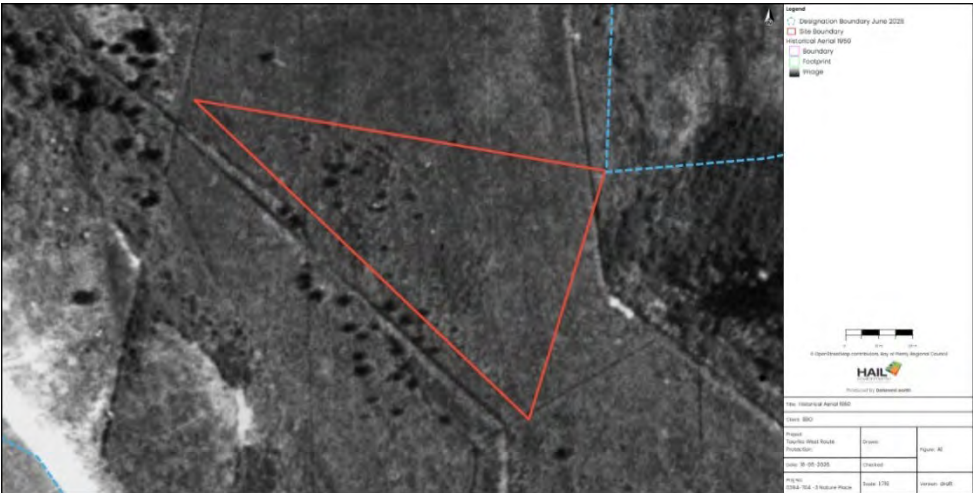
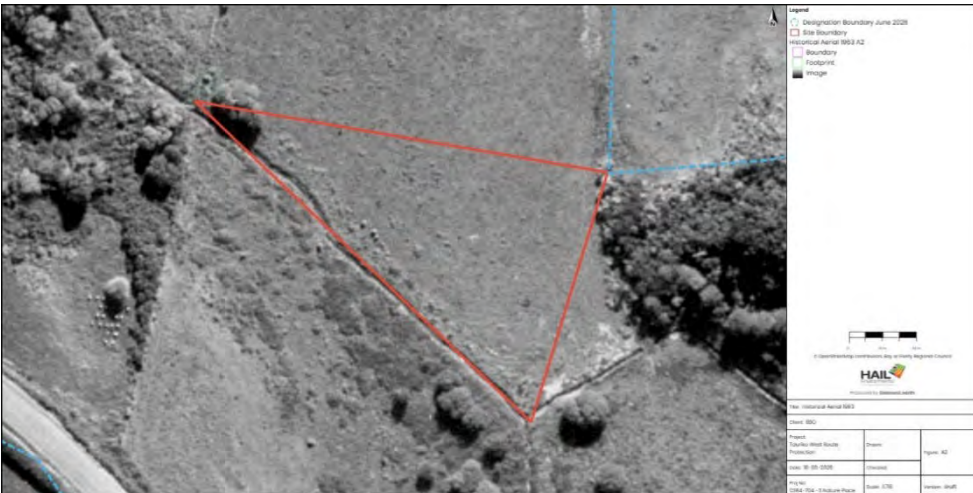


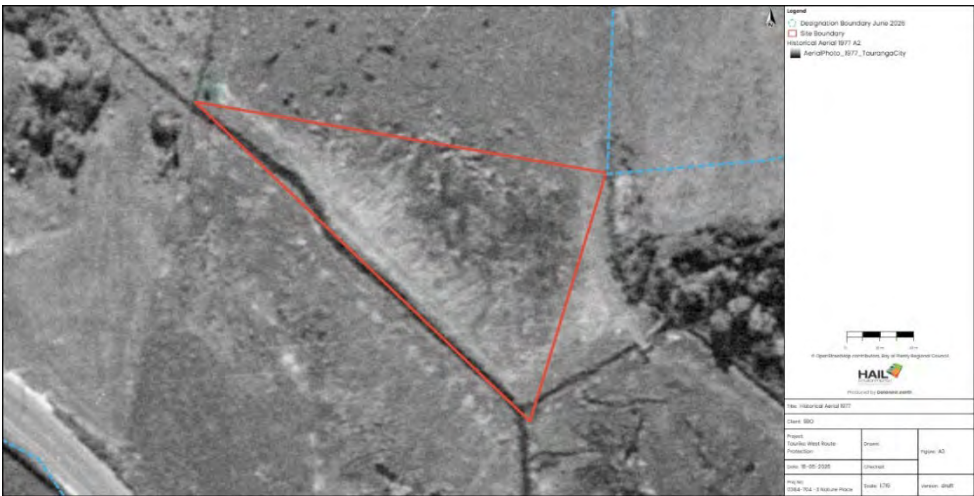
2011 – No change



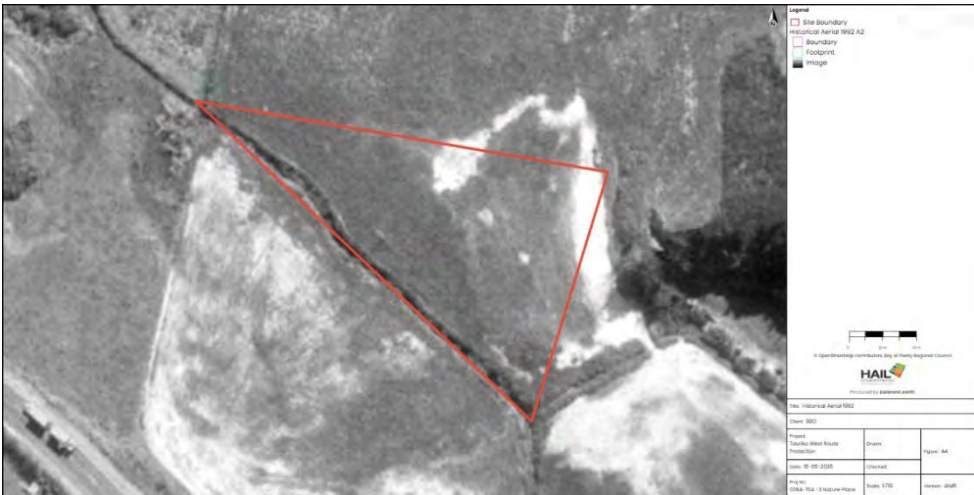
2025 – No change

Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	No potential HAIL activities identified

Address	3 Nature Place, Greerton
Site reference	44
Legal Description	Lot 2 DPS 84323
Owner	s9(2)(a)
Site area (ha)	0.47
Current land use	Residential
Certificate of Title	SA66D/834
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	No HAIL activities identified
Previous land uses	 1950 - Pastoral  1963- No change



1977 – No change



1992 – Some possible levelling of the site or earthwork.



2003 – Dwelling in centre east of site.

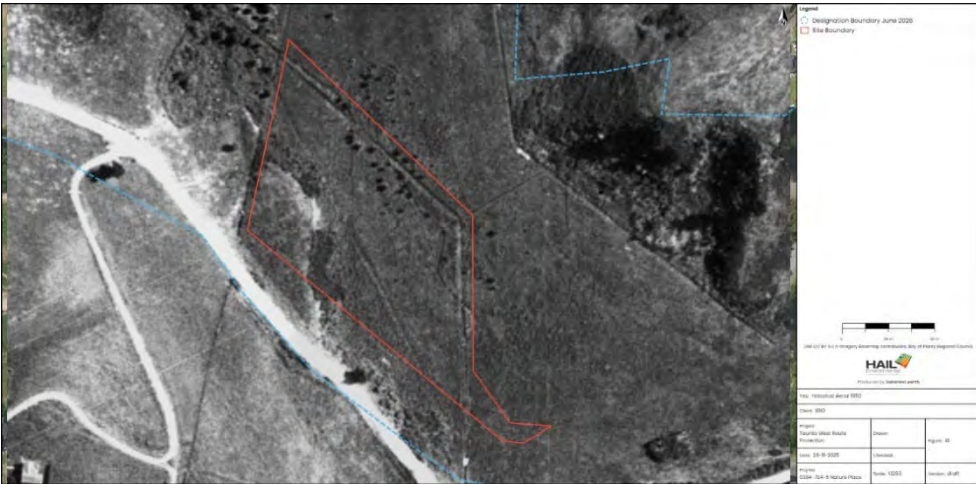
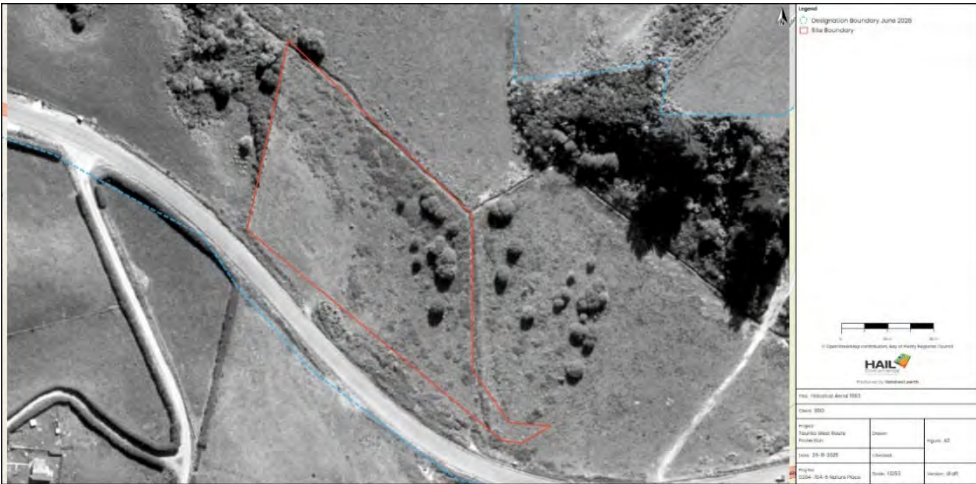


2011 – No change



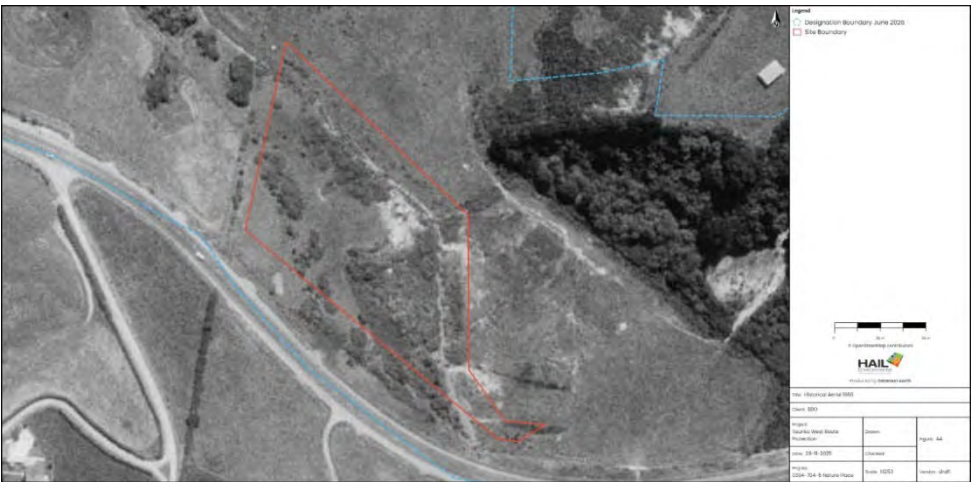
2025 - Personal nursery/vegetable gardens and two glasshouses.

Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	No potential HAIL activities identified

Address	5 Nature Place, Greerton
Site reference	45
Legal Description	Lot 1 DPS 84323
Owner	s9(2)(a)
Site area (ha)	1.3364
Current land use	Rural residential
Certificate of Title	SA66D/833
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	Not HAIL activities identified
Previous land uses	 1950 – Pastoral grazing  1963 – No change



1977 – No change



1986 – No change



1992 - All vegetation removed and earthworks, possibly levelling across whole site.



2003 – Dwelling and shed in west of site.



2011 – Horse paddocks in east and small animal shelter



2025 – No change

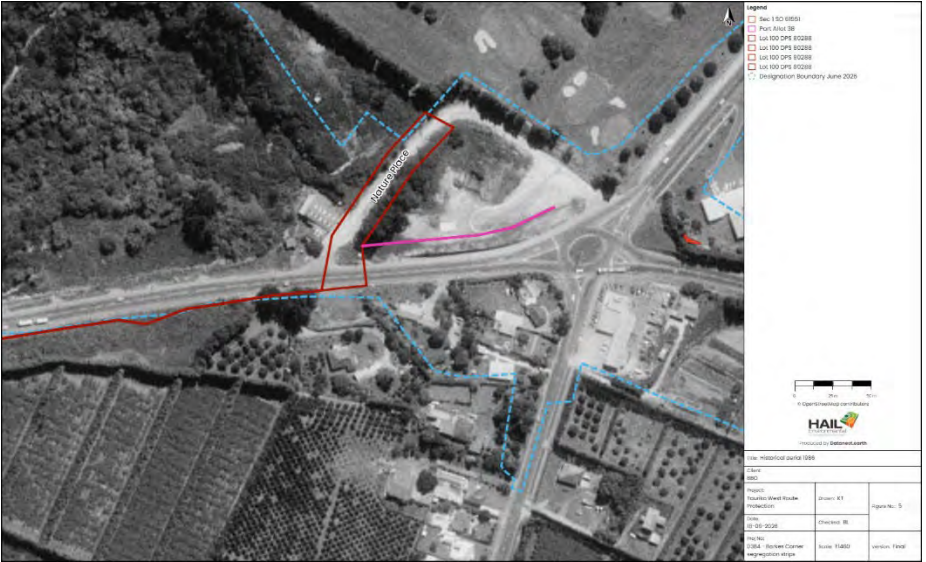
Previous investigations	None undertaken
Site inspection	Yes
Adjoining land use	Residential

Site photos	 Waste pile containing ash residues, plastic containers, textiles, timber boxes, burnt wood.	 Fiberboard soffits in main dwelling.
Summary of potential HAIL land use(s)	Unlikely ACM impacts based on site visit.	

Address	Barkes Corner segregation strips
Site reference	46
Legal Description	Part Allot 38 Te Papa PSH, Lot 100 DPS 80288, Sec 1 SO 61551, Nature Place ID 4579918
Owner	Functioning Indirectly of a Limited Access Road New Zealand Gazette 1983 p 4298, Local Purpose Segregation Strip, Tauranga City Council, Tauranga City Council, Pedestrian Over-Bridge New Zealand Gazette 2001 p 1963
Site area (ha)	0.003, 0.0005, 0.0008, 0.1995
Current land use	Roadside berm
Certificate of Title	NA, SA64C/123, NA
Property file	Not requested
Consents	Sec 1 SO 61551 - 23531.0.01 DC Use of waste oil as a dust suppressant. Expired June 1993.
HAIL ID	Not on LUR
HAIL land uses	A18, G5
Previous land uses	 1950- All areas pastoral  1963- Part Allot 38 is part of timber mill, Lot 100 is roadside berm, Sec 1 remains pastoral



1977 -Part allot 38 is now the boundary of a commercial site, Sec 1 is now roadside berm.



1986 – No change



1992 – No change

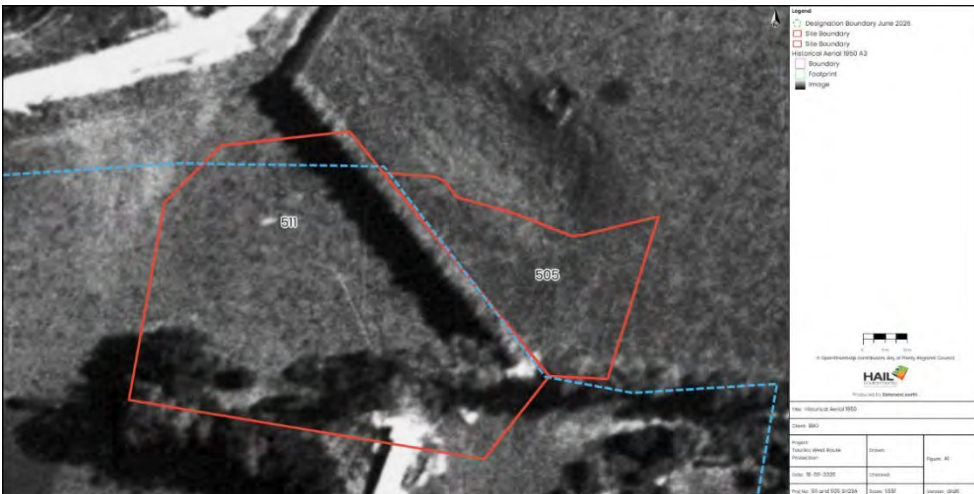


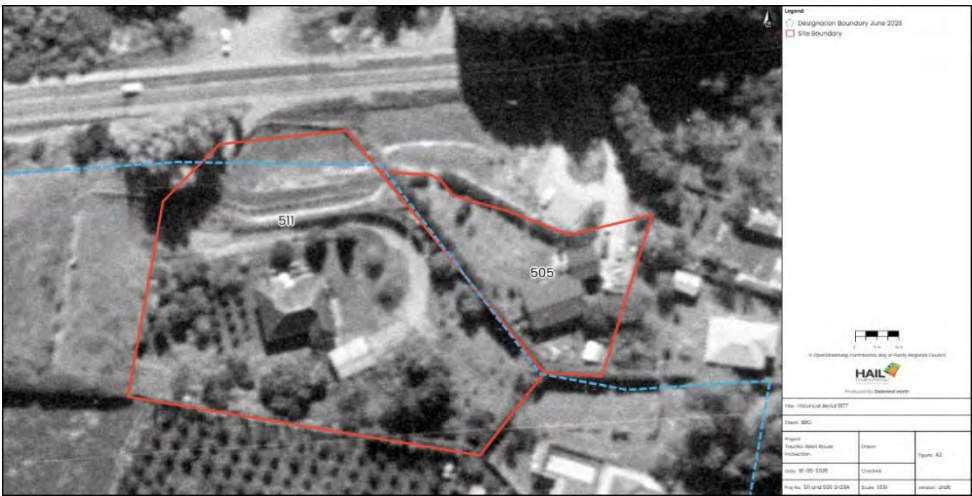
Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Part Allot 38 part of former timber mill, potential timber treatment impacts. Consent for Sec 1 indicates disposal of waste oil to land as a dust suppressant.



	 2025 – No change
Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Potential ACM and lead impacts in the west of the site around the dwelling, which is outside the designation. Area within the designation not consider HAIL land.

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Address	511 and 505 State Highway 29A, Greerton, Tauranga
Site Reference	50
Legal Description	Lot 1 DPS 7725, Lot 2 DPS 91058
Owner	s9(2)(a)
Site area (ha)	0.46, 0.13
Current land use	Residential
Certificate of Title	SA1C/824, SA72A/437
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	E1, I
Previous land uses	 1950 - Vacant land. Overlap with neighboring site, half a shed in southeast corner.  1963 – Small shed in south of 505, dwelling centrally located in 511.



1977 – Dwelling and garage in 505.

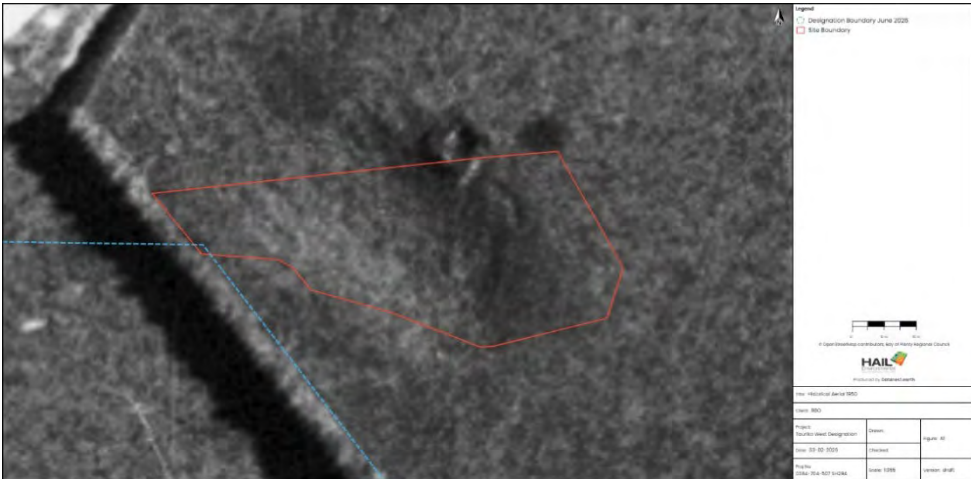


1992 – No change



2011 – No change

	 2025 – No change
Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Potential ACM and lead impacts around current buildings on 505. Potential lead and ACM impacts around buildings on 511, however these are on land which is outside the designation, and therefore unlikely to impact the project.

Address	507 State Highway 29A, Greerton, Tauranga
Site reference	51
Legal Description	Lot 1 DPS 91058
Owner	s9(2)(a)
Site area (ha)	0.13
Current land use	Commercial building/offices - Barks Corner Vet Hospital
Certificate of Title	SA72A/436
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	E1, I
Previous land uses	 1950 - Pastoral  1963 – Surrounding land developed. Highway construction along northern boundary



1977 – Some earthworks within site.



1986 – Building present within centre of site.



1992 – No change



2011 – No change



2025 – No change

Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Poential ACM and lead impacts around buildings.

Address	561 and 563 Cambridge Road
Site reference	52
Legal Description	LOT 24 DPS 71310, Lot 25 DPS 71310
Owner	Unknown
Site area (ha)	0.31, 0.4
Current land use	Residential
Certificate of Title	SA57B/500, SA57B/501
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	No HAIL activities identified
Previous land uses	 1950 - Pastoral  1963 – No change



1977 – No change

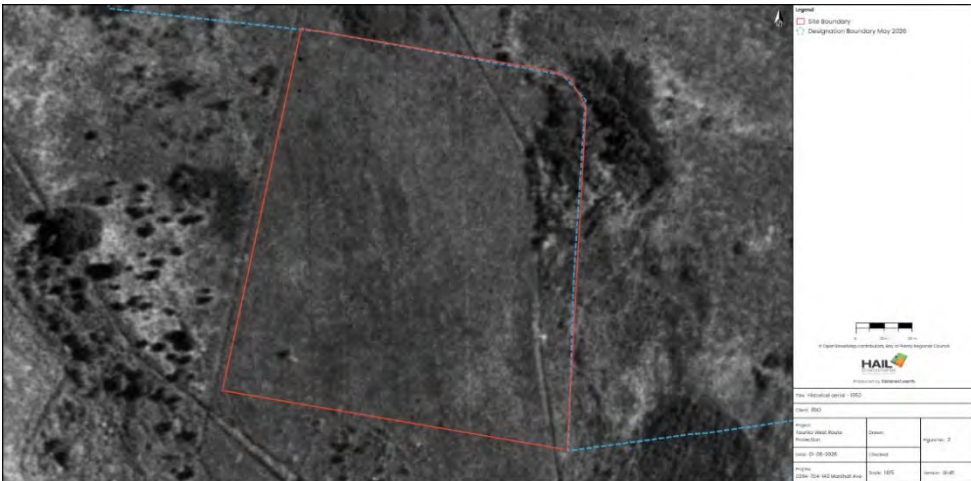
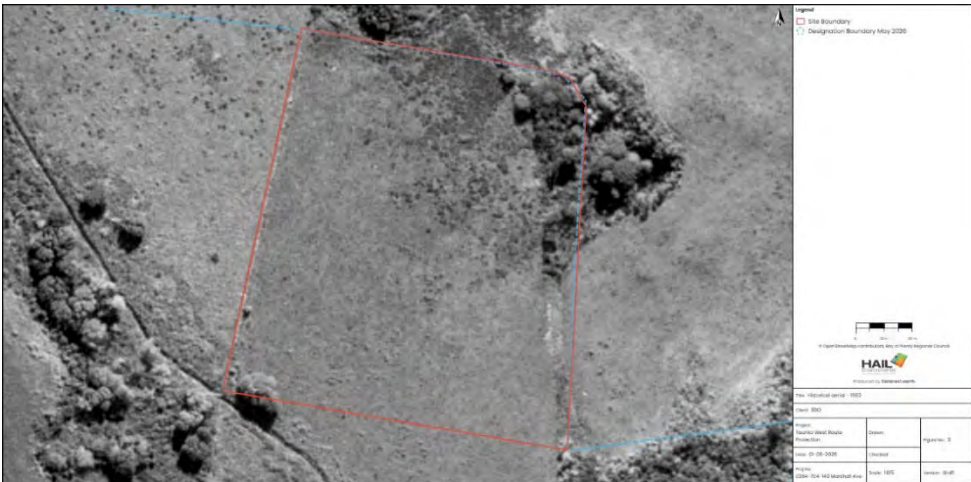


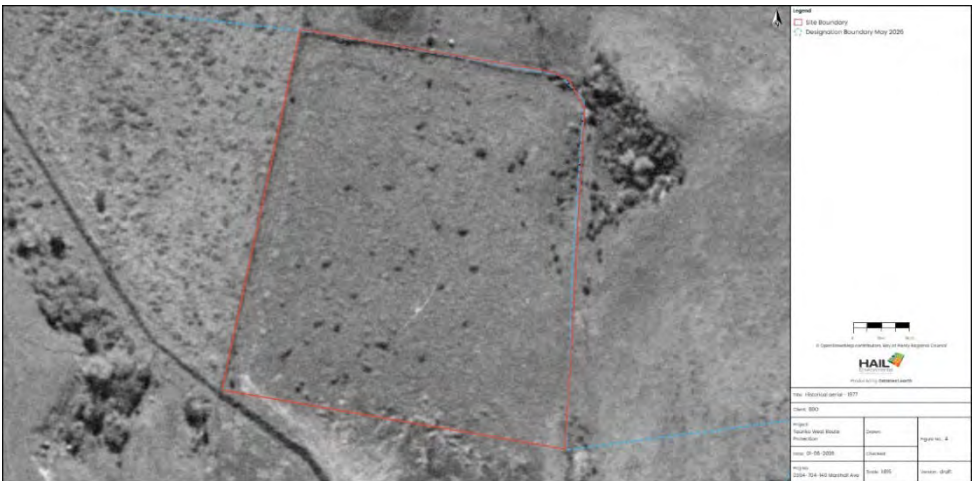
1992 – No change



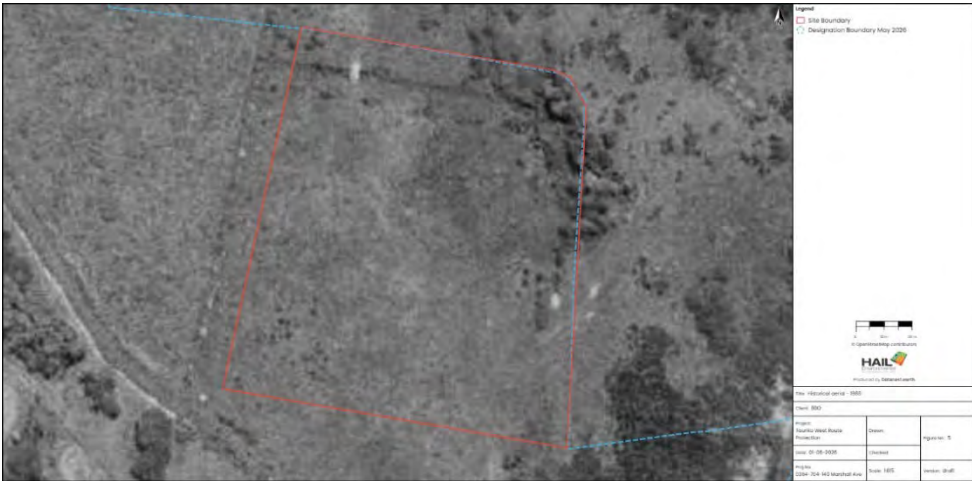
2003 – Dwellings in both sections



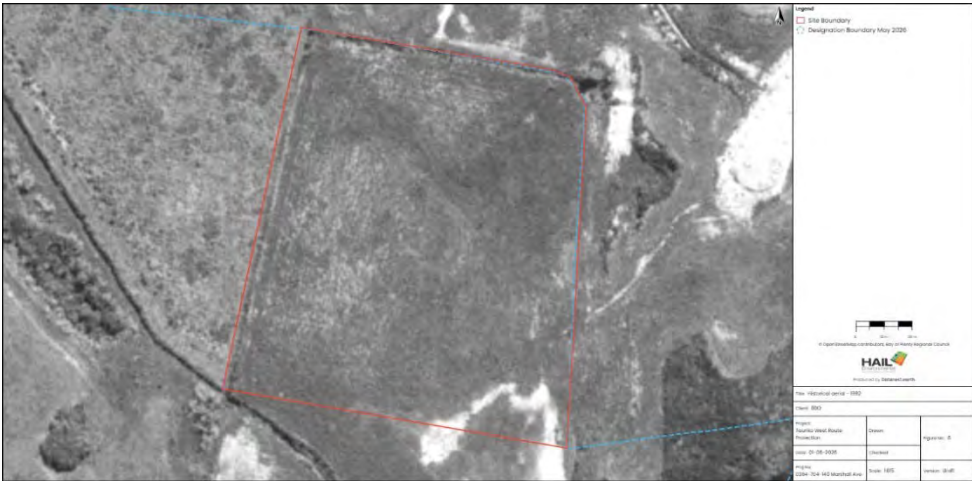
Address	140 Marshall Avenue
Site reference	53
Legal Description	Lot 33 DPS69346
Owner	Unknown
Site area (ha)	14.84
Current land use	Residential
Certificate of Title	SA55D/30
Property file summary	Not requested
Consents	Multiple consents: 63443.0.05-LC, 63443.0.04-DC, 63443.0.03—BC, 63443.0.02-LC, 63443.0.01-BC, 63443.0.05-LC, 63443.0.04-DC, 63443.0.03-BC, 63443.0.02-LC, 63443.0.01-BC
HAIL ID	Not on LUR
HAIL land uses	No HAIL activities identified
Previous land uses	 1950 - Pastoral  1963 – No change



1977 – No change



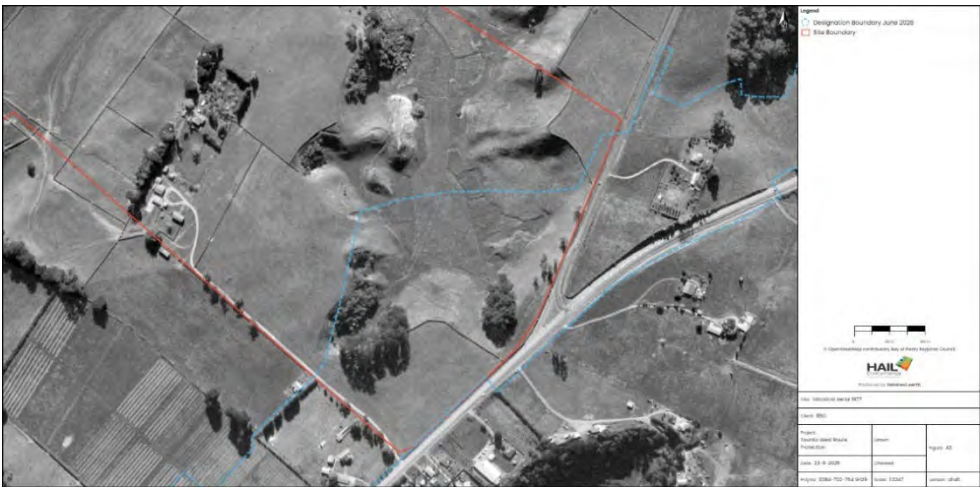
1986 – No change



1992 – Minor earthworks in east

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Address	764 SH29
Site Reference	54
Legal Description	Pt Allotment 86 Te Papa Parish
Owner	s9(2)(a)
Site area (ha)	24.53
Current land use	Pastoral grazing and kiwifruit orchard
Certificate of Title	SA476/196
Property file summary	Not requested
Consents	Multiple consents: RM22-0609-DC.03, RM22-0609-BC.01, RM22-0609-DC.02 , RM22-0609-LC.01
HAIL ID	Not on LUR
HAIL land uses	A7, E1
Previous land uses	1950 - The site is largely used for pastoral grazing. A cluster of farm buildings and stockyards are located on the SW boundary of 764 State Highway 29 (outside the designation). A dwelling, several outbuildings and an orchard are located to the north of the farm buildings (area also outside designation). 1963 – No change



1977 - No change, addition of shed in far west, well out of designation.

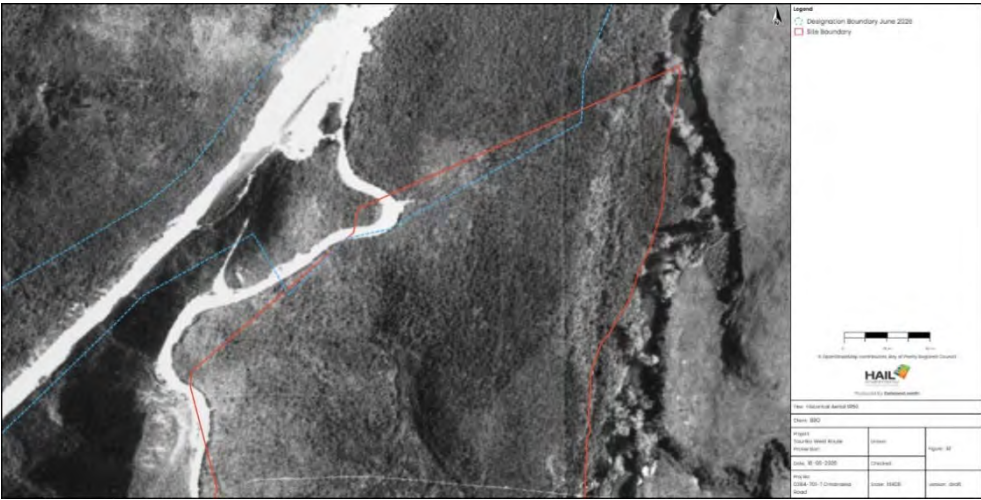


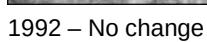
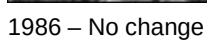
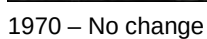
1992 - New shed north of existing dwelling.



2003 – No change

	 2011 - No significant changes, but a dairy effluent pond has been constructed to the west of the farm buildings and another building, presumably a shed, has been constructed north of the dwelling. 2025 - Effluent pond has been filled in. Earthworks and stockpiling of soil within the designation area, adjacent to SH25.
Previous investigations	Ferncliffe Farm PSI_DSI HAIL 2023 Tonkin and Taylor, 2021. Pre purchase investigation report. HAIL 2024 (0338A CSMP-RAP).
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Storage tanks or drums for fuel, chemicals or liquid waste and potential ACM and lead impacts, are likely present in the north of the site, which is outside the designation. No HAIL activities were identified within the designation area.

Address	7 Omanawa Road, Omanawa
Site Reference	55
Legal Description	Lot 1 DPS 287
Owner	s9(2)(a)
Site area (ha)	4.11
Current land use	Pastoral grazing
Certificate of Title	SA1026/268
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	No HAIL activities identified
Previous land uses	 1950 – Pastoral grazing  1963 – No change



	 2011 – No change
	 2025 – No change
Previous investigations	WSP, 2024
Site inspection	Not inspected
Summary of potential HAIL land use(s)	No HAIL activities identified.

Address	1095A SH29
Site Reference	56
Legal Description	Lot 9 DP 12853
Owner	CROWN
Site area (ha)	2.67
Current land use	Residential and pastoral grazing
Certificate of Title	4292989
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	A10, E1, I
Previous land uses	 1950 - Pasture with dwelling in north of site, inside designation  1963 – additional building added, outside designation



1970 – No change



1986 – Orchard present in the north of the site.



1994 – Most of the orchard has been removed, just a handful of domestic plants left.



2003 – No change

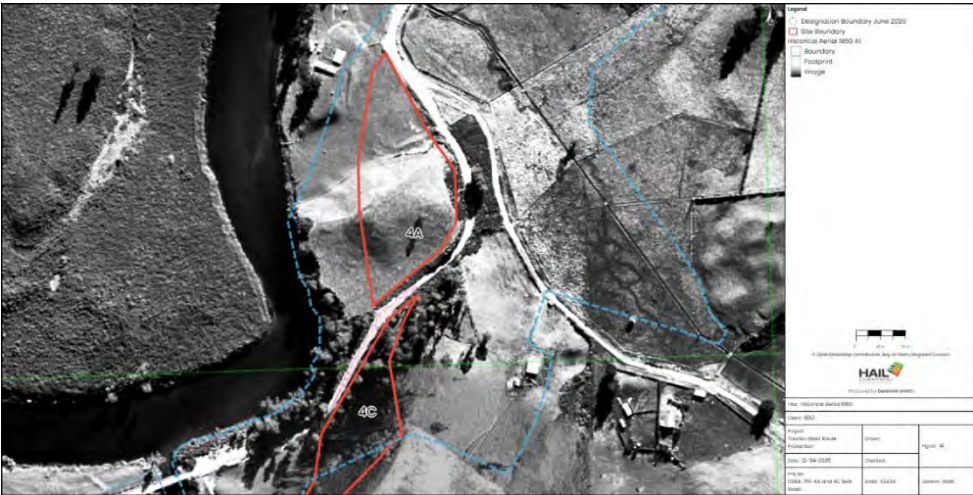


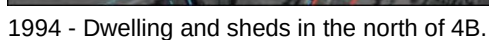
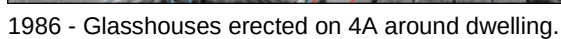
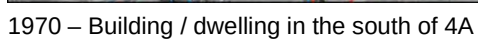
2011 – No change



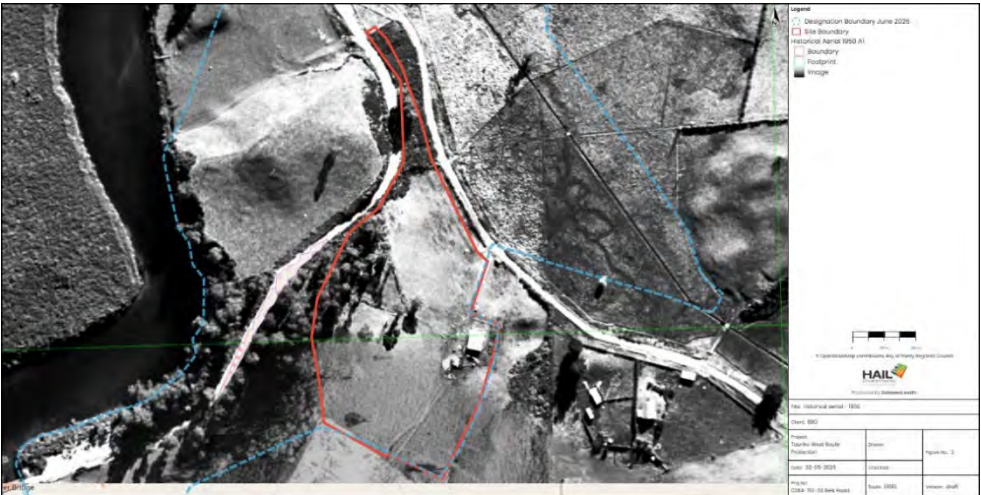
2025 – Northern portion of site has been remediated, construction of new bridge underway

Previous investigations	WSP, 2025
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Site partially remediated. Potential ACM and lead impacts remain around dwelling and outbuilding in southern portion.

Address	4A and 4C Belk Road, Omanawa
Site reference	57
Legal Description	Part Lot 6 DP12853, Lot 8 DP 564534
Owner	s9(2)(a)
Site area (ha)	2.144, 1.60
Current land use	Residential and orchard
Certificate of Title	SA44A/295, 1021476
Property file summary	Not requested
Consents	No resource consents
HAIL ID	LUR - WBP – 02388 (4A)
HAIL land uses	A10, E, I
Previous land uses	 1950 - Pastoral  1963 – No change





Address	30 Belk Road, Omanawa
Site reference	58
Legal Description	Lots 3 and 4 DP 457710
Owner	s9(2)(a)
Site area (ha)	NA
Current land use	Residential and pastoral
Certificate of Title	593887
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	E1, I
Previous land uses	 1950- Pastoral grazing. Building / dwelling in east of site.  1963 -No change



1970 –Additional shed in the east near dwelling



1986 – No change



1994 – Dwelling removed



2003 – New dwelling in east



2011 – New dwelling in the north



2025 – No change

Previous investigations	None undertaken
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Potential ACM and lead impacts around former dwelling location in the east.

Address	Site already re-worked into new roundabout as SH29 Enabling Workst
Site reference	59
Legal Description	Lot 5 DP 480187
Owner	s9(2)(a)
Site area (ha)	NA
Current land use	Roadway
Certificate of Title	670625
Property file summary	Not requested
Consents	No resource consents
HAIL ID	Not on LUR
HAIL land uses	No HAIL activities identified
Previous land uses	Aerial images / site location not available, CT and legal descriptions no longer exist.
Current image	 2026
Previous investigations	PSI - WSP 2022, DSI – WSP 2022
Site inspection	Not inspected
Summary of potential HAIL land use(s)	Earth worked as part of SH29 Enabling works project. No HAIL activities identified.

Appendix C: Designation related cadmium data



Legend

- Designation boundary 2026
- Soil sample location (2025)
- Soil sample location (2023-2024)
- Supplementary topsoil samples (2025)

0 250 m 500 m

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HAIL
Environmental
THE COMMUNITISED SITE CONSULTANCY

Produced by **Datanest.earth**

Title: Ambient Cadmium Sample plan

Client: BBO		Size: A3
Project: Tauriko West Designation	Drawn: KT	Figure No.: 12
Date: 10-03-2026	Checked: KT	
Proj No: 0384 Master	Scale: 1:12500	Version: Final

Table 1: Cadmium in pastoral topsoils



Study/Project	Sample ID	Depth (m bgl)	Cadmium
Ferncliffe Farms HAIL Environemntal, 2023	PS1 0.02-0.1	0.02-0.1	0.944
	PS2 0.02-0.2	0.02-0.2	1.22
	PS3 0.02-0.2	0.02-0.2	0.758
	PS4 0.02-0.2	0.02-0.2	0.747
	PS5 0.0-0.15	0.02-0.15	1.09
	PS6 0.02-0.2	0.02-0.2	0.39
	PS7 0.02-0.2	0.02-0.2	0.906
	PS8 0.02-0.2	0.02-0.2	0.635
	PS9 0.01-0.2	0.01-0.2	0.647
	PS10 0.01-0.1	0.01-0.1	0.39
TPG Stage 1, HAIL Environmental, 2024	PS-11-TS	0-0.15	0.807
	PS-12-TS	0-0.3	0.535
	PS-13-TS	0-0.2	0.744
	PS-14-TS	0-0.3	0.38
	PS-15-TS	0-0.1	0.518
	PS-16-TS	0-0.25	1.08
TPG Borrow Pit HAIL Environmental, 2025	PS101	0-0.2	0.648
	PS102	0-0.1	0.642
	PS103	0-0.25	0.778
	DUP1 (PS103)	-	0.892
	PS104	0-0.08	0.539
	PS105	0-0.2	0.47
	PS106	0-0.2	0.577
	PS107	0-0.2	0.869
	PS108	0-0.08	0.47
	PS108	0-0.2	0.981
	PS109	0-0.2	0.595
	PS111	0-0.15	0.652
	DUP2 (PS111)	0-0.15	0.517
	PS112	0-0.15	0.47
	PS113	0-0.15	0.44
	PS114	0-0.15	0.49
	PS115	0-0.15	0.4
SH29 Enabling works WSP, 2023	C1-01	-	0.83
	C1-02	-	0.43
	C1-03	-	0.36
SH29 Enabling works HAIL Environmental, 2025	C1a	-	0.48
	C1b	-	0.35
	DUP1 (C1b)	-	0.41
	C1c	-	0.39
	C1d	-	0.854
	C1e	-	1.15
	C1f	-	0.839
	C1g	-	0.923
	C1h	-	1.04
	C1i	-	0.614
SH29 Enabling works WSP, 2023	B9-01	0.01	0.54
	B9-02	0.01	0.87
	B9-03	0.01	0.77
	B9-04	0.01	0.79
	B9-05	0.01	0.68
	B9-06	0.01	0.75
	B9-07	0.01	0.6
	B9(T)-01	0.01	0.63
	B9(T)-02	0.01	0.83
	B9(T)-03	0.01	0.87
	B10-01	0.01	0.06
	B10-02	0.01	0.1
	B10-03	0.01	0.59
	B10-04	0.01	0.37
	B10(T)	0.01	0.69
Mean (n=61)			0.66
95% UCL (n=61)			0.71
Guideline values	Upper background concentration ¹		0.5
	SCS (rural-residential 25% produce) ²		0.8
	EcoSGV ³		1.5*

¹Upper background concentrations from control sites (n=25) across Bay of Plenty. SEM NZ Limited, 2005.

²Soil Contaminant Standards (SCS) for rural-residential use: Methodology for deriving standards for contaminants in soil to protect human health. Ministry for the Environment, Wellington. 2011.

³An implementation framework for ecological soil guideline values. Envirolink Tools Grant: C09X2206. Landcare Research, July 2023

* An extra 5% protection applied to each land use to provide protection against secondary poisoning (biomagnification)

Black bold: Exceeds SEM upper background concentrations.

Orange bold: Exceeds the residential SCS.

Underlined: Exceeds EcoSGVS for residential land use.