



PRELIMINARY SITE INVESTIGATION SL1 HOUCHENS BLOCK

Prepared for Ohaupo Land LP and Chinamans Hill Ltd

Prepared by Swiftsure Consultants Ltd

12 November 2025

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Swiftsure Consultants Ltd Document Control:

Report Title	Preliminary Site Investigation: SL1 Houchens Block		
Client	Ōhaupō Land LP and Chinamans Hill Ltd	Client Contact	s 9(2)(a)
Date	Revision Details / Status		
12 November 2025	Final report issued to Client		

SQEP Certifying Statement

I certify that the site has been assessed in accordance with current New Zealand Regulations and guidance documents and reported in general accordance with the Ministry for the Environment's Contaminated Land Management Guidelines No. 1: Reporting on Contaminated Sites in New Zealand (dated 2021).

I am considered by Swiftsure Consultants Ltd Limited to be a suitably qualified and experienced practitioner (SQEP) able to certify reports pursuant to the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

s 9(2)(a), Contaminated Land Specialist



Dated: 12 November 2025

1 Introduction

Swiftsure Consultants Ltd (“Swiftsure”) was requested by Ōhaupō Land LP and Chinamans Hill Ltd (the “Client”) to prepare a Preliminary Site Investigation (PSI) for an area of land located within the southern portion of the Southern Links 1 (SL1) Growth Cell, bordered by Houchens Road to the west, and Ōhaupō Road to the east (the “site”).

This work has been carried out in accordance with our signed agreement dated 9 July 2025.

2 Project

The ‘SL1 Houchens Development’ is a combined residential and industrial development that comprises circa 145 hectares, which will be split into a mix of residential densities and industrial development. The residential component comprises circa 55ha of net residential, including 1,300 residential units of varying typologies (including single detached, duplex, terraced apartment), a 400-unit retirement village, along with two supporting mixed-use neighbourhood centres, open spaces, waterbodies and infrastructure devices including wetlands. The SL1 Houchens Development includes a net 25ha of industrial, generating between 24 – 47 industrial sized lots for industrial activities.

The residential development is underpinned by a series of design principles, which focus on creating a well-connected, legible, and diverse community on Hamilton City’s urban fringe. The proposed transport network, with a 30-metre-wide spine road running north-to-south, is supported by existing and proposed local roads, cycle connections and pedestrian pathways to create an accessible and legible development. As aforementioned, a range of housing typologies and densities are proposed to meet the growing and changing needs of the housing market to ensure there are options for future residents. Each typology has been thoughtfully located, based on opportunities and constraints, with density ranging from terraced, duplex and detached dwellings to ensure integration with the adjoining urban footprint.

Located on the eastern and central portions of the Houchens Development are neighbourhood centres that will provide a range of amenities and services to support the residential and industrial developments. This neighbourhood centre will likely include commercial properties, childcares, cafés, and a local superette.

Sitting at the lower, southern point of the site is a retirement village that comprises approximately 15 hectares and provides 400 units of varying typologies, including traditional villa and apartment typologies. This will be serviced by its own private transport network, infrastructure, and high amenity open spaces.

On the north-western edge is strategic industrial land that provides key connectivity to the potential Southern Links Houchens interchange, a Road of National Significance (RONs).

The wider SL1 Houchens Development integrates throughout a number of open spaces, waterbodies and wetlands that are well distributed to create a high amenity community that will be a pleasant and enjoyable place to live for future residents. These open spaces, waterbodies and wetlands support ecological restoration through the retention of a number of natural species and riparian revegetation and support broader cultural biodiversity outcomes within SL1 Houchens Development.

The SL1 Houchens Development includes a proposed Water Reservoir, to provide the ability for a long-term strategic water asset for Hamilton City Council to be designated. The development will be appropriately serviced via a robust infrastructure strategy, which includes the addition of a water reservoir to accompany the one already existing, utilisation of existing services and stormwater artificial wetlands.

3 Purpose and Scope

This Preliminary Site Investigation (PSI) will provide the following:

- Identify potential sources of contaminants in soils as a result of current and/or historical land use.
- Identify the likely consents required under the NES-CS¹.

The scope of works included a desk-based review of historical background information. As part of this, the following information sources were reviewed:

- Information made available by Waikato Regional Council (WRC).
- Screening of property files held by Waipa District Council (WDC).
- Historical aerial photographs.
- Local geology, hydrogeology and hydrology.
- Walkover inspection of the site.
- Discussions with persons knowledgeable about the site.

This assessment has been undertaken and reported in general accordance with the following:

- Ministry for the Environment Contaminated Land Management Guidelines (CLMG) No. 1 – Reporting on Contaminated Sites in New Zealand (2011).
- Ministry for the Environment Contaminated Land Management Guidelines (CLMG) No. 5 – Site Investigation and Analysis (2011).

4 Site Description

The block site is located on Ōhaupō Road and Houchens Road, Hamilton. The site comprises an area of approximately 141ha and is currently used for agricultural and horticultural purposes. The site is bordered by Houchens Road to the west and Ōhaupō Road to the east, residential/lifestyle blocks to the north and farmland to the south (refer to **Figures 1 and 2** for site location).

¹ National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (April, 2012)

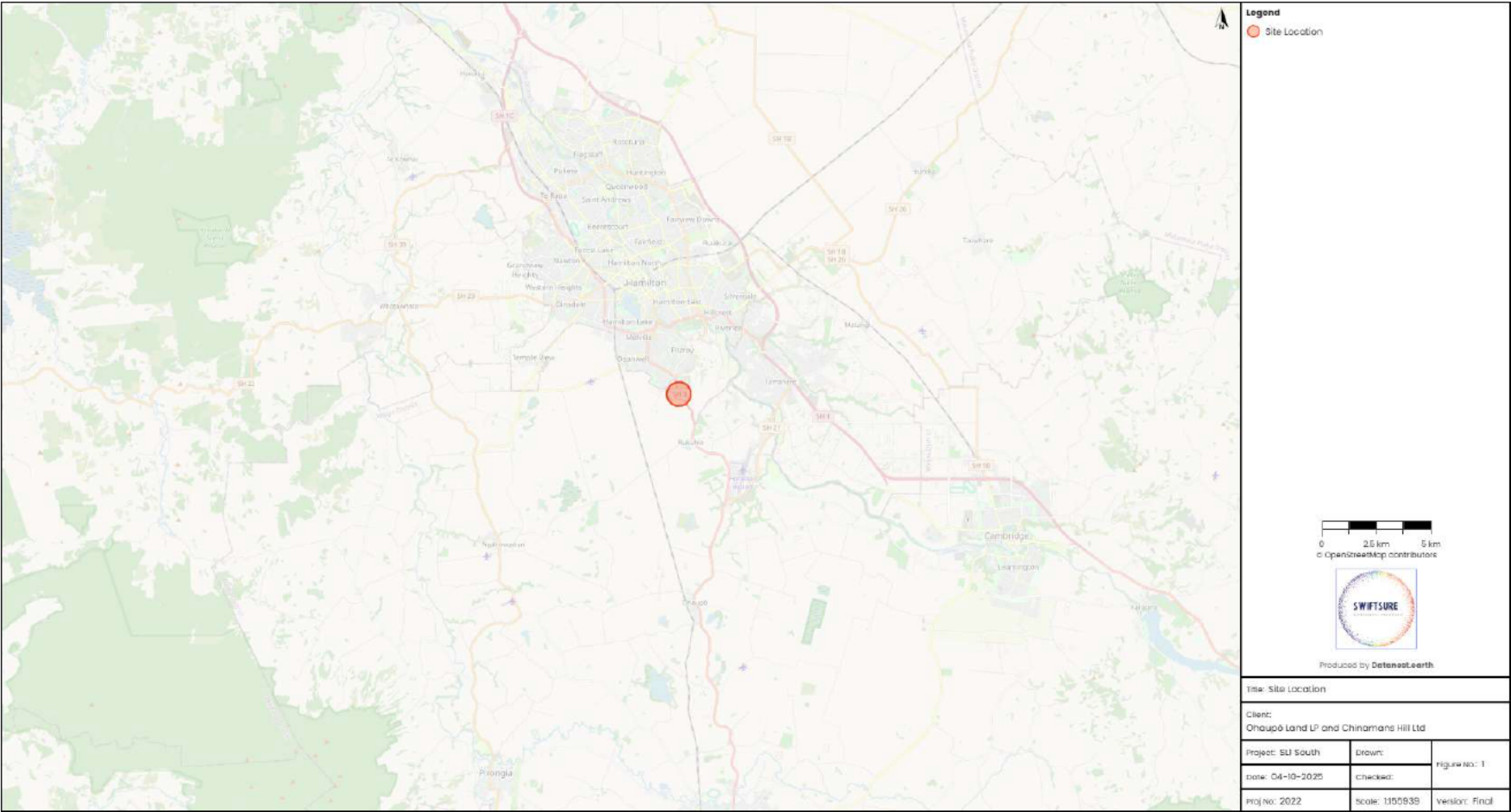


Figure 1: Geographical Site Location

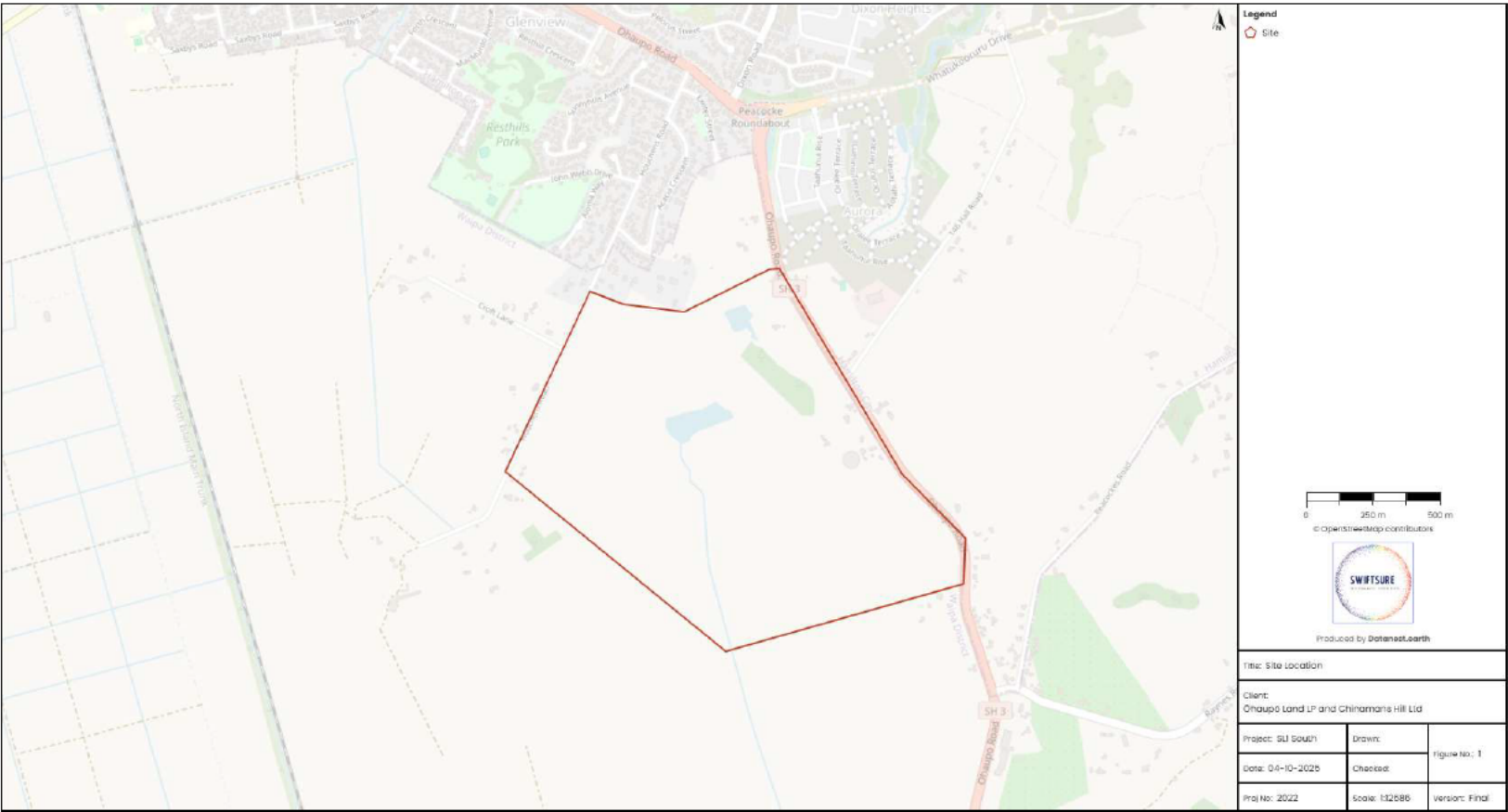


Figure 2: Site Location



Figure 3: Masterplan of Houchens Block

5 Published Geology

5.1 Geology and Hydrogeology

Geological maps² indicate the site is underlain by the Piako Subgroup – comprised soft, dark brown to black, organic mud, muddy peat and woody peat. This material has been deposited within the last 14,000 years; the Hinuera Formation - comprised cross-bedded pumice sand, silt and gravel with interbedded peat. Age of deposits is between 11.9Ka and 58.8Ka; and the Walton Subgroup – comprised alluvium dominated by primary and reworked, non-welded ignimbrite with volcanic ashes mantling older deposits. Age of deposits is between 0.42Ma and 2.59Ma.

There are 10 bores within 500m of the site as follows:

Table 1: Bore Information

Bore ID	Static Water Level (m)	Status
Bore 70 – Station 476	-	Existing
Bore 70 – Station 363	-	Existing
Bore 72 – Station 11515	21.5	-
Bore 72 – Station 192	11	Existing
Bore 70 – Station 348	-	Existing
Bore 70 – Station 449	-	Existing
Bore 72 – Station 11780	-	Existing
Bore 70 – Station 643	12.5	Existing
Bore 70 – Station 603	35.9	Existing

5.2 Geomorphology

Existing geotechnical assessments for the SL1 area³ state the following:

The site is dominated by two major landforms – the ‘Low Hamilton Hills’ and the ‘Wetland/Alluvial Plain’:

- Low Hamilton Hills – found predominantly in the north-eastern half of the site. These areas are generally defined by gently undulating to moderately steep rolling hill country at between RL46m and RL81m (Moturiki Datum) elevated above the adjacent alluvial plain. Gully systems with tributary streams to the Waikato River can be found throughout the Low Hamilton Hill Areas. Approximately 50% of the subject site is within the Low Hamilton Hills landform.
- Wetland/Alluvial Plain – found predominantly in the south-western half of the site. This landform is defined by an essentially level to gently undulating plain at between RL40m and RL53m (Moturiki

² Geological Map of New Zealand: 1:125K. Institute of Geological and Nuclear Sciences Ltd, 2010.

³ Proposed Subdivision: Ohaupo Land and Chinamans Hill, Southern Links, Hamilton – Geotechnical Investigation Report. CMW Geosciences, 7 August 2025.

Datum) that lies to the west of the Low Hamilton Hills. The plains are often crossed with a network of open drains which collect surface water and discharge into a valley that cuts through the low hills to the north. Two large ponds are located within the base of this valley. The balance of the subject site is within the Wetland/Alluvial Plains landform.

5.3 Groundwater

The Geotechnical report³ prepared for the wider area states that nearby NZGD data have logged groundwater ranging between 0 and 14.5 metres below ground level (mbgl) with an average depth of 2.6m. Groundwater in the Low Hamilton Hills groundwater ranged between 0.4 to 3.9mbgl with an average depth of 2.5m. Groundwater in the Wetland/Alluvial Plain groundwater ranged between 1.1 to 14.5mbgl with an average depth of 3.0m. It should be anticipated that groundwater levels will fluctuate seasonally or during prolonged periods of dry or wet weather.

6 Information Review

A review of information relevant to the site was undertaken as part of this assessment. The following sections provide a summary of the review.

6.1 Historical Aerial Review

Historical aerial photographs have been obtained from Retrolens and Google Earth for the years 1941 (used from the project Geotechnical Report⁴), 1953, 1971, 1979, 1986, 1990, 1995, 2008 and 2023.

Copies of the historical aerial photos can be found in **Appendix A. Table 2** below summarises observations from each photo.

Table 2: Summary of Historical Aerial Photography Review

Year	Key Information
1941	The site is predominantly covered in wetland scrub.
1943	Evidence of clearing of wetland scrub and conversion to agricultural use. There are several clusters of structures present - To the south of the site is an 'L-shaped' structure'. To the east of the site off Ōhaupō Road are structures at the end of the drive, a larger (possibly house) halfway down the drive and another house bordered by hedgerows adjacent to the road. One of these structures is a milking shed which is still present today.
1953	Most of the site looks to have switched to agricultural use and is fully converted by the 1971 image. Far drains are now evident likely associated with the agricultural use. An additional structure is now located along the driveway off Ōhaupō Road. The larger structure adjacent to the milking shed has been removed. Two additional structures replace it.
1971	(Partial image). A pond is now evident in the centre of the site. A new dwelling has been constructed north of the site adjacent to Ōhaupō Road (now 3044 Ōhaupō Road). Several additional farm buildings are now located in this area. Additional farm buildings are also present along the third driveway off Ōhaupō Road as well as animal pens. This is the location of another milking shed still present today.
1979	Evidence of the construction of two ponds in the base of the valley. A house has been constructed at the end of the middle driveway – this is still present today.
1986	A small orchard/market garden is present at (what is now 3124 Ōhaupō Road). The site continues to be used for agricultural use.
1990	The orchard/market garden is still present. As are the various farm buildings. There are no other discernible changes.
1995	There are no discernible changes.
2008	By 2008, the large water tank is now evident on Ōhaupō Road. The orchard/market garden has been removed. there are no other discernible changes.
2023	There are no discernible changes.

⁴ Proposed Subdivision: Ohaupo Land and Chinamans Hill, Southern Links, Hamilton – Geotechnical Investigation Report. CMW Geosciences, 7 August 2025

6.2 Information held by Council

6.2.1 Waipa District Council

Property files for 3102, 3104, 3106, 3110, 3120, 3116, 3122, 3124 and 3134 Ōhaupō were requested and reviewed from WDC. Relevant information to this assessment is provided below.

The property file held for 3134 Ōhaupō Road was reviewed, and the following relevant information was noted.

- Building Permit: Cow Shed. Permit to construct a cow shed. Dated 18 July 1977. The associated plans show 'external cladding asbestos cement' as part of the construction.
- Wide Format Plan: Cow Shed. Dated 1977.
- Decision on an application for subdivision and land use consent under the Resource Management Act. Subdivision of one Lot into two Lots under the surplus dwelling provisions in the Rural Zone in conjunction with a land use consent LU/0170/21 under the NES requirements and to dispense with internal boundary setbacks and maneuvering within setback requirements. The decision makes note of a Detailed Site Investigation, Soils Management Plan and requirement for a Remediation Action Plan. A summary of the DSI is provided below - the CSMP/RAP were not able to be sourced within the timeframe of this current desk study assessment.

6.2.2 Preliminary and Detailed Site Investigation: 3134 Ohaupo Road, PDP June 2021

Pattle Delamore Partners Ltd (PDP) has been engaged by Cogswell Surveys on behalf of Ōhaupō Lands Limited Partnership to undertake a combined Preliminary Site Investigation and Detailed Site Investigation at 3134 Ōhaupō Road. The purpose was to assess contamination as a result of current of historic activities. The PSI/DSI focused on 1,200m² of land (containing an existing residential property) located adjacent to Ōhaupō Road. The site was proposed to be subdivided from the wider site and assessment under the NES-CS was required.

Soil sampling was undertaken around the halo of the three buildings as well as in the former horticultural area. Heavy metals were found to be above the adopted background criteria but below the NES-CS soil contaminant standards (SCSs) for 10% produce residential land use. Lead was found at concentrations above the NES-CS SGV for residential 10% land use around the halo in the main residential dwelling. Remediation and/or management was recommended.

6.2.3 Waikato Regional Council

A Land Use Information Register (LUR) enquiry was made to WRC. The Waikato Regional Council maintains a register of properties known to be contaminated on the basis of chemical measurements or potentially contaminated on the basis of past land use. This register (called the Land Use Information Register) is still under development and should not be regarded as comprehensive. The 'potentially contaminated' category is gradually being compiled with reference to past or present land uses that have a greater than average chance of causing contamination, as outlined in the Ministry for the Environment's Hazardous Activities and Industries List (HAIL).

The response stated that the site does appear on the Land Use Information Register. The area shaded yellow above (LUI10553) appears on the Land Use Information Register with a classification of 'Unverified HAIL' due to past land use for HAIL activity 'A10. Persistent pesticide bulk storage or use (unknown period)' associated with 3134 Ōhaupō Road - Historic Horticulture Activity.

This site is included on the register for land use information only; the council advised that they do not hold soil investigation reports regarding the presence or otherwise of hazardous substances in the soil.



6.3 Site Visit

On 11 September 2025, representatives from Swiftsure Consultants undertook a site inspection. Photographic records are provided in **Appendix B**.

The site is located within a predominantly rural and agricultural area and has been used as a dairy runoff from the adjoining property for the past four years. For approximately 30 years prior, the land operated as a drystock hobby farm. The property consists mainly of pasture and farm races and remains largely undeveloped. It is bounded by State Highway 3 (Ōhaupō Road) to the east and Houchens Road to the west. Surrounding features include Resthills Park to the northwest, the Transpower Hamilton Office to the east, and residential dwellings to the north. The wider landscape is predominantly farmland.

Two large ponds are located at the base of a valley in the northern section of the site, receiving runoff via a farm drain from the south. The southeastern portion of the property slopes toward a low-lying wetland area. Recently felled trees were observed along the main driveway entrance at 3134 Ōhaupō Road.

Development within the site is concentrated near Ōhaupō Road. Structures in this area include a disused dairy shed, hay barn, storage shed, workshop, and a newer milking shed, all situated near the end of the main driveway. These buildings are in poor and deteriorated condition and appear to contain suspected asbestos-containing materials (ACMs). Animal holding pens and a loading ramp were also noted. Several containers of hazardous substances—including cleaning agents, fuel, and pesticides—were observed, along with farm machinery and general equipment. A homemade above-ground fuel tank containing diesel was located inside one of the sheds. The surrounding area was overgrown and unused.

A residential dwelling is located opposite the driveway. The site representative advised that this house was not accessible during the inspection; therefore, observations were made from a distance. The dwelling appeared dated and likely constructed prior to 2000.

A large concrete water tank (approximately 60m in diameter) is located near the dwelling, with five residential houses situated adjacent to it along the roadside. This area was not accessed during the inspection, and therefore limited observations were made.

To the northwest of the water tank, a second dairy shed, holding pen, and loading ramp were observed. This shed was also in a dilapidated condition and appeared to contain suspected ACMs. ACM debris was visible on the floor, along with waste materials, drums, containers, and general rubbish. A nearby hay shed was similarly deteriorated, and the area contained farm machinery, chemicals, and fuel. ACM debris was also observed in the adjacent paddock. Recent minor earthworks appeared to have been carried out, with small stockpiles of building materials and suspected ACM noted.

The remainder of the site consists of undeveloped pasture and farm races. The site representative advised that some fertilizer had been applied to the pasture in the past 4 years but prior to that was unknown. To their knowledge, there are no dips or spray operations on the site.

7 Summary of Information and Discussion

Historical aerial photographs (1941–present) indicate that the site was originally covered in wetland scrub, with clearing and conversion to agricultural land use commencing around 1947. By 1954, most of the site had been converted to pasture, with full agricultural development established by 1971. Two artificial ponds were constructed in the 1970s within the lower-lying wetland/alluvial area of the site. Over subsequent decades, farm drains were progressively added to support dairy operations.

The site has formed part of a larger operational dairy farm for at least 35 years, primarily used for livestock grazing and farm access (races). Fertiliser application, including superphosphate, has occurred for at least the past four years, and likely longer. While no specific records of fertiliser use are held by Waikato Regional Council, prolonged superphosphate application is known to contribute to the accumulation of cadmium in soils, particularly in the Waikato region, which records some of the highest background levels nationally.

Development is concentrated along Ōhaupō Road, where several farm structures and dwellings—constructed mainly during the 1970s–1990s—were observed. These include disused dairy sheds, hay barns, storage sheds, workshops, and a residential dwelling. The buildings are in poor condition and are likely to contain asbestos-containing materials (ACMs) and possibly lead-based paints, both of which were widely used prior to 2000. Consequently, there is potential for localised soil contamination surrounding these structures from ACM degradation or lead paint residues.

Several containers of hazardous substances (including fuels, cleaning products, and pesticides) were observed around the farm buildings, alongside general machinery and farm waste. Historical and ongoing use of these areas for material storage, waste dumping, and machinery maintenance presents a credible risk of localised contamination (e.g., hydrocarbons, heavy metals, and pesticide residues) within surface soils. Evidence of recent earthworks and partially buried building materials further increases the likelihood of disturbed or impacted soils.

Historical horticultural activity was evident from around 1980 until 1995 where either an orchard or market garden was present at 3134 Ōhaupō Road. There is the potential that persistent pesticides to have been used: lead and arsenic (associated with lead arsenate sprays), organochlorine pesticides such as DDT, and copper-based sprays.

Existing contaminated land investigations are held by WRC as part of previous subdivision of the site. The investigations are reported to have found elevated lead around the existing house as well as other contaminants above the adopted background criteria at 3134 Ōhaupō Road - a contaminated soils management plan was required.

Although pastoral and dairy farming are not individually listed activities under the Hazardous Activities and Industries List (HAIL), associated on-farm practices—such as livestock holding yards, fuel or chemical storage, farm waste disposal, and historical sheep dipping—are recognised as potential contamination sources. While not documented in available records, these activities may have historically occurred on the site.

8 Conceptual Site Model

Based on the information review and limited soil sampling, the conceptual site model is shown in **Table 3**. Included are the HAIL codes considered to apply on a 'more likely than not' basis. **Appendix C** shows the areas of the site where the HAIL code applies.

Table 3: Conceptual Site Model

Source	Contaminant of Concern	HAIL Code	Exposure Pathway	Potential Receptor	Pathway Complete?
Former and existing buildings constructed pre 2000s	Asbestos Lead	E1 - Asbestos products manufacture or disposal including sites with buildings containing asbestos products known to be in a deteriorated condition (current and former structures). 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 or the environment.	Exposure of workers to contaminants in soils and groundwater during site redevelopment – dermal contact, ingestion or inhalation of dust/vapours	Construction workers.	Potential Pathway – Contaminants in soils may be at levels to pose a risk to human health.
			Exposure of future site users to contaminants in soils – dermal contact, ingestion or inhalation of dust/vapours.	Future site users.	Potential Pathway – Contaminants in soils may be at levels to pose a risk to human health.
			Exposure of general public to contaminants in soils– dermal contact, ingestion or inhalation of dust/vapours.	General public.	Incomplete Pathway – General public do not have access to the site.
			Groundwater resources for public consumption.	Leaching and migration of soil contaminants into groundwater.	Potential Pathway –Contaminants in soils may be at levels to have the potential to leach.
			Surface water	Sediment and runoff directly into surface water.	Potential Pathway –Contaminants may be at levels to have the potential to leach to adjacent stormwater channel.
			Exposure of workers to contaminants in soils and groundwater during site redevelopment – dermal contact, ingestion or inhalation of dust/vapours.	Construction workers.	Potential Pathway – Contaminants in soils may be at levels to pose a risk to human health.

Source	Contaminant of Concern	HAIL Code	Exposure Pathway	Potential Receptor	Pathway Complete?
Disused milking shed and laydown/storage area	Asbestos Hydrocarbons Heavy metals SVOCs	E1 - Asbestos products manufacture or disposal including sites with buildings containing asbestos products known to be in a deteriorated condition (current and former structures). 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 or the environment.	Exposure of future site users to contaminants in soils – dermal contact, ingestion or inhalation of dust/vapours.	Future site users.	Potential Pathway – Contaminants in soils may be at levels to pose a risk to human health.
			Exposure of general public to contaminants in soils– dermal contact, ingestion or inhalation of dust/vapours.	General public.	Incomplete Pathway – General public do not have access to the site.
			Groundwater resources for public consumption.	Leaching and migration of soil contaminants into groundwater.	Potential Pathway –Contaminants in soils may be at levels to have the potential to leach.
			Surface water	Sediment and runoff directly into surface water.	Potential Pathway –Contaminants may be at levels to have the potential to leach to adjacent stormwater channel.
Superphosphate application	Cadmium	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 or the environment.	Exposure of workers to contaminants in soils and groundwater during site redevelopment – dermal contact, ingestion or inhalation of dust/vapours.	Construction workers.	Potential Pathway – Contaminants in soils may be at levels to pose a risk to human health.
			Exposure of future site users to contaminants in soils – dermal contact, ingestion or inhalation of dust/vapours.	Future site users.	Potential Pathway – Contaminants in soils may be at levels to pose a risk to human health.
			Exposure of general public to contaminants in soils– dermal contact, ingestion or inhalation of dust/vapours.	General public.	Incomplete Pathway – General public do not have access to the site.
			Groundwater resources for public consumption.	Leaching and migration of soil contaminants into groundwater.	Potential Pathway –Contaminants in soils may be at levels to have the potential to leach.
			Surface water	Sediment and runoff directly into surface water.	Potential Pathway –Contaminants may be at levels to have the potential to leach to surface water.

Source	Contaminant of Concern	HAIL Code	Exposure Pathway	Potential Receptor	Pathway Complete?
Former orchard/market garden	Heavy metals Herbicides Organophosphates Organochlorines	A10. Persistent pesticide bulk storage or use	Exposure of workers to contaminants in soils and groundwater during site redevelopment – dermal contact, ingestion or inhalation of dust/vapours.	Construction workers.	Potential Pathway – Contaminants in soils may be at levels to pose a risk to human health.
			Exposure of future site users to contaminants in soils – dermal contact, ingestion or inhalation of dust/vapours.	Future site users.	Potential Pathway – Contaminants in soils may be at levels to pose a risk to human health.
			Exposure of general public to contaminants in soils– dermal contact, ingestion or inhalation of dust/vapours.	General public.	Incomplete Pathway – General public do not have access to the site.
			Groundwater resources for public consumption.	Leaching and migration of soil contaminants into groundwater.	Potential Pathway –Contaminants in soils may be at levels to have the potential to leach.
			Surface water	Sediment and runoff directly into surface water.	Potential Pathway –Contaminants may be at levels to have the potential to leach to surface water.

9 Development Implications

9.1 National Environmental Standard: Contaminated Land

The *Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011* (NES-CS) applies to land as per clause 5(7):

“Land covered:

- (7) The piece of land is a piece of land that is described by 1 of the following:
- (a) an activity or industry described in the HAIL³ is being undertaken on it;
 - (b) an activity or industry described in the HAIL has been undertaken on it;
 - (c) it is more likely than not that an activity or industry described in the HAIL is being or has been undertaken on it.”

The following HAIL⁵ activities (please refer to **Table 3** for further detail) have been identified for this site on a more likely than not basis:

- **A10** - Persistent pesticide bulk storage or use
- **E1** - Asbestos products manufacture or disposal including sites with buildings containing asbestos products known to be in a deteriorated condition (current and former structures).
- **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 or the environment.

The NES-CS applies to five activities taking place on land identified to have potentially contaminative activities being undertaken on it, as listed on the HAIL. Should a trigger activity be undertaken, the regulations of the NES-CS will apply.

Table 4: NES-SC Trigger Activities

Trigger Activity
Does the proposed activity at the site include the removal or replacement of all, or part of, a fuel storage system?
Does the proposed activity at the site include soil sampling?
Does the proposed activity at the site involve the disturbance of soil?
Does the proposed activity at the site involve the subdivision of the land?
Does the proposed activity involve a change of land use?

9.2 Soil Disturbance

Regulation 8(3) of the NESCS provides for the disturbance of contaminated soil on a “piece of land” (as per Regulation 5(7)) as a Permitted Activity, providing that the criteria in Table 13 (below) are met.

⁵ Hazardous Activities and Industries List (MfE)

The PSI has determined several smaller 'pieces of land'- specifically the halo around the former and existing buildings, and the disused milking shed and surrounding laydown area. On a 'more likely than not' basis the use of superphosphates is not considered a HAIL activity.

Table 5: Permitted Activity Soil Disturbance Criteria

	Criteria	Complies
1	Appropriate dust, erosion and sediment controls are put in place to limit contaminant mobility for the duration of the works and until the site is in an erosion free state.	Yes
2	The soil is in an erosion free state within one month of the completion of works.	Yes
3	The volume of soil disturbance must be no more than 25 m ³ per 500 m ² of the "piece of land".	Unlikely
4	Soil must not be taken away from the site that exceeds 5 m ³ per 500 m ² of the "piece of land" per year.	Unlikely
5	Soil for off-site disposal must be taken to an appropriate facility.	Yes
6	Duration of the works must not exceed two months.	To be confirmed
7	On-site containment of contaminants must not be compromised.	Yes

Based on the above assessment, the proposed soil disturbance and disposal volumes are considered unlikely to meet the permitted activity limits specified in Regulation 8(3) of the NES-CS. Soil disturbance (including soil disposal) will therefore require a land use consent and a Detailed Site Investigation (DSI) is required.

9.3 Change of Land Use

Regulation 8(4) of the NES-CS provides for subdividing or changing use of the piece of land as a Permitted Activity, providing that the criteria in **Table 6** are met.

Regulation 8(4) allows land-use change of a piece of land where it can be demonstrated it is highly unlikely that there will be a risk to human health given the intended activity. Highly unlikely should be interpreted in a plain English way to mean a high probability that there is no serious or real and substantial risk⁶.

Based on the findings of the PSI and considering the likely nature of any contamination as well as potential exposure pathways, there is a potential risk to human health associated with the proposed activity on the site. Under the intended land use, direct or indirect exposure to contaminated soil is considered reasonably likely to pose a risk to human health. Consequently, the proposed change in land use is unlikely to comply with the permitted activity criteria specified under Regulation 8(4) of the NES-CS. As such, a land use consent will be required and a Detailed Site Investigation (DSI) is required.

⁶ Users' Guide: NES for Assessing and Managing Contaminants in Soil to Protect Human Health, 2012

Table 6: Permitted Activity Criteria for Change of Land Use

	Criteria	Complies
1	A preliminary site investigation of the land or piece of land must exist.	Yes
2	The report on the preliminary site investigation must state that it is highly unlikely that there will be a risk to human health if the activity is done to the piece of land.	No
3	The report must be accompanied by a relevant site plan to which the report is referenced.	Yes
4	The consent authority must have the report and the plan.	Yes

9.4 Waikato Regional Plan

The Waikato Regional Plan defines 'contaminated land' as:

- a) *If there is an applicable national environmental standard on contaminants in soil, the land is more contaminated than the standard allows; or*
- b) *If there is no applicable national environmental standard on contaminants in soil, the land has a hazardous substance in or on it that-*
 - i) *Has significant adverse effects on the environment; or*
 - ii) *Is reasonably likely to have significant adverse effects on the environment.*

Rules relating to discharges from remediation of contaminated land are defined in Module 5 of the Waikato Regional Plan section 5.3 (Contaminated Land). It states the following:

Permitted Activity Rule – Discharges from Remediation of Contaminated Land

Any discharge arising from remediation of contaminated land is a permitted activity, subject to the following conditions:

- a. any discharge to air arising from the activity shall comply with the conditions and standards and terms in Section 6.1.8 except where the matters addressed in Section 6.1.8 are already addressed by conditions on resource consents for the site.
- b. No contaminants from the remediation of the contaminated land shall be discharged into water or onto land unless discharged to a landfill authorised in Section 5.2.7.
- c. The Waikato Regional Council shall be provided with the following reports prepared in compliance with Contaminated Land Management Guideline No.1: Reporting on Contaminated Sites in New Zealand (Ministry for the Environment, Wellington, NZ, updated October 2003) prior to commencement of land remediation:
 - i. detailed site investigation report
 - ii. site remedial action plan

- d. After remediation is completed, copies of the following reports prepared in compliance with Contaminated Land Management Guideline No.1: Reporting on Contaminated Sites in New Zealand (Ministry for the Environment, Wellington, NZ, updated October 2003) must be provided to the Waikato Regional Council:
 - i. site validation report
 - ii. ongoing monitoring and management plan.
- e. Any updates of these reports shall be provided to the Waikato Regional Council if a change in investigation, remediation and monitoring strategy occurs.

10 Conclusion and Recommendations

Given the rural and agricultural nature of the site, limited information is available on past activities that may have caused soil contamination. The property has operated as a dairy farm for around 35 years, with various structures built in the 1970s. Due to their age, there is potential for localized soil contamination from asbestos-containing materials (ACMs) and lead-based paint.

Former horticultural activity has the potential to have resulted in localised soil contamination from the use of persistent pesticides and other related contaminants.

Although superphosphate use is not recorded, its long-term application in dairy farming suggests a risk of cadmium accumulation in soils, particularly in the Waikato region. Additionally, the derelict milking sheds and other farm buildings constructed with suspected ACMs and used for long-term material storage may pose a contamination risk from asbestos and other sources.

While general dairy farming is not listed on the HAIL, associated activities—such farm dumps, chemical storage or waste disposal—may have occurred and can result in soil or groundwater contamination.

Overall, the risk of widespread contamination is assessed as low to moderate, reflecting the site's predominantly rural land use. However, localised contamination hotspots may exist around former farm structures, chemical storage areas, and earthwork stockpiles. Targeted soil testing and validation are recommended prior to any earthworks, redevelopment, or disturbance of these areas to confirm soil quality and manage potential risks appropriately.

Land use consent is required under NESCS Regulations 8(3) and 8(4), though the activity is likely permitted under the Waikato Regional Plan. A Detailed Site Investigation is required to better characterize the soils around those HAIL areas identified as well as sampling of the wider pastoral land.

12 Limitations

This report is the property of Ohaupo Land LP and Chinamans Hill Ltd and Swiftsure Consultants Ltd. It was produced for the purpose stated above in accordance with the conditions of the contract dated 9 July 2025. It does not purport to provide legal or financial advice. Swiftsure Consultants Ltd accepts no liability to any other party or for any other purpose.

We have only reviewed readily available information. This information may contain errors and omissions, for which we cannot be responsible: we have not validated any information unless specifically stated.

The recommendations in this report are based on information provide to Swiftsure Consultants Ltd at the time of writing this report.

This report is current as of 12 November 2025. Site conditions may change in future, as may regulations and guidance. Readers must make their own judgements as to whether this report remains current at the time of reading, and/or seek further advice from Swiftsure Consultants Ltd.

APPENDIX A: Historical Aerial Photographs















APPENDIX B: Site Photographs

