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#### **ENGEO Document Control:**

| Report Title       | Preliminary Site Investigation (PSI) – Edwards Road, Rolleston, |                |          |    |
|--------------------|---|----------------|----------|----|
| Project No.        | <b>Project No.</b> 28396.000.001 <b>Doc ID</b> 02               |                | 02       |    |
| Client             | Jatinder Pal Singh  | Client Contact |          |    |
| Distribution (PDF) |   |                |          |    |
| Date               | Revision Details / Status                                       | Author         | Reviewer | WP |
| 05/06/2025         | Issued to Client  | JG             | НА       | JT |

#### **SQEP Certifying Statement**

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

I am considered by ENGEO 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, based on the company's definition of a SQEP as given below.

Hazel Atkins

05 June 2025

ENGEO Limited requires that a SQEP has the following Qualifications / Experience:

- Tertiary science or engineering qualification relevant to environmental assessment.
- A minimum of ten years of relevant experience.
- Registration with a professional body that assess and certifies environmental professionals in the competency criteria of training, experience, professional conduct, and ethical behaviour.



# **Executive Summary**

| Site Address /<br>Legal Description                     | 984 Selwyn Road - Lot 2 DP 491231 & Lot 2 DP 74801  Edwards Road - Lot 1 DP 20007, Lot 3 DP 72132, Lot 1 DP 74061 BLKS III VII Leeston SD  Not in proposed plans but still assessed  966 Selwyn Road - Lot 1 DP 74801  1002 Selwyn Road - Lot 1 DP 26197 BLKS III VII Leeston SD  986 Selwyn Road - Lot 1 DP 491231  It was advised that these properties were under offer so were included in our investigation.   |
|---|---|
| Site Investigation<br>Area                              | Approximately 49 hectares   |
| Proposed<br>Redevelopment /<br>Land Use                 | Residential subdivision   |
| Adopted land use scenario from the NES:CS               | A mixture of residential 10% produce consumption, commercial / industrial, recreational and high density residential.   |
| Historical / Current<br>Land Use                        | Rural / Agricultural  |
| Applicable HAIL activity as defined by the NESCS (Soil) | Category A10: Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds. This activity applies to the identified orchard area at 984 Selwyn Road.  Category E1: Asbestos product manufacture or disposal including sites with buildings containing asbestos products known to be in a deteriorated condition. This activity applies to all buildings on site that are built prior to 2010 and the PACM identified on the exterior of the pig shed at 1002 Selwyn Road.  Category G4: Scrapyards including automotive dismantling, wrecking or scrap yards. This activity applies to the scrap yard operations occurring on site at 1002 Selwyn Road.  Category G5: Waste disposal to land. This activity applies to areas on site where there has been disposal to land and includes the concrete rubble pile identified at 966 Selwyn Road.  Category 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. This activity applies to the identified burn pit locations across the site.  Category A17: Storage tanks or Drums for fuel, chemicals or liquid waste. This activity applies to the above ground storage tank located at the rear of the residential dwelling at 966 Selwyn Road. |
| Conclusions and Recommendations                         | Based on the findings of this preliminary site investigation it is recommended that a detailed site investigation (DSI) is undertaken on site to further assess the identified past and present HAIL activities occurring on site. A DSI would include intrusive soil sampling that would further characterise the level of contamination on site.  |



#### 1 Introduction

ENGEO Ltd was requested by Jatinder Pal Singh to undertake a Preliminary Site Investigation (PSI) to support a proposed plan change of a series of properties currently zone rural "Outer Plains" to a mix of living and business zones. A total of five properties with eight allotments were assessed as a part of this assessment. All properties are adjoining and are located at the intersection of Selwyn Road and Edwards Road, Rolleston, (herein referred to as 'the site', shown in (Figure 1). This work has been carried out in accordance with our signed agreement dated 25 March 2025.

The purpose of the assessment was to support an application for a proposed Plan Change with Selwyn District Council (SDC). This environmental investigation has been undertaken to satisfy the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations (2011; the 'NESCS').

It is understood that Jatinder Pal Singh intends to request a change to the Operative Selwyn District Council Plan to rezone the specified properties from rural "Outer Plains" to allow for a diverse mix of land uses, including commercial spaces, aged care and retirement facilities, residential areas with medium to high density, schooling establishments, and public parks or reserves.

Based on the plans provided majority of the site will consist of residential allotments that are 350 m² in size with some larger sections up to 729 m². A large portion of the site will also be occupied as a retirement village with a total size of 79,767 m². A school is proposed to occupy 34,626 m² of the development. The remainder of the site will be made up of a shopping centre, childcare, public parks / reserves and medium – high density residential living.

Whilst no properties within the site boundary are currently registered on Canterbury Regional Council's Listed Land Use Register, it is recognised that that the potential for soil and groundwater contamination still exists. This may constrain future development, either as the result of significant risk to human health or nearby ecology, or more practical risks with logistics of development.

To support the required zoning change, an assessment in the form of a preliminary site investigation (PSI), is required to identify and assess potential sources of contamination within the study area resulting from current and historical activities, and to determine the likelihood of impact to future development options. Where contaminating activities are identified it is likely that these would need to be further assessed through more intrusive investigation works in line with a Detailed Site Investigation (DSI).

This investigation was undertaken in general accordance with the Ministry for the Environment (MfE) Contaminated Land Management Guidelines (CLMG) No. 1: Reporting on Contaminated Sites in New Zealand (MfE, 2021a) and CLMG No 5: Site Investigation and Analysis of Soils (MfE, 2021b). The investigation was supervised, and the report reviewed and approved by a suitably qualified and experienced contaminated land practitioner in accordance with national environmental regulations for soil contamination.

# 1.1 Approach

Due to the proposed plan change the principal aim of this PSI report is to identify properties and any historical and or current site activities that may present a risk to a redevelopment activity. In addition, the focus of the PSI is to identify and assess HAIL activities and the potential of contamination that has occurred from these activities.



This PSI is to support a plan change exercise only. It is expected that further in-depth contamination assessment in the form of a DSI will be required to support redevelopment of the properties. The scope of the further investigation will be determined by a Suitably Qualified and Experienced Practitioner (SQEP) at the time in which redevelopment is proposed, based on the findings in this report and any subsequent technical reporting relating to the development proposed and risk identified.

# 1.2 Objectives of the Assessment

The objective of the preliminary site investigation (PSI) was to gather information relating to current and historical land uses to identify potentially contaminating activities included on the Hazardous Activities and Industries List (HAIL; MfE, 2011b); and to develop a preliminary conceptual site model (PCSM) to assess the potential exposure pathways present at the site regarding the proposed plan change. To satisfy the objectives, ENGEO sought to gather information regarding the following:

- Review relevant and available environmental information on the site.
- Carry out a site walkover to identify potential HAIL activities or areas of concern.

#### 2 Site Information

Site information is summarised in Table 1.

Table 1: Site Information

| Item                             | Description   |
|----------------------------------|---|
|                                  | 984 Selwyn Road - Lot 2 DP 491231 & Lot 2 DP 74801  Edwards Road - Lot 1 DP 20007, Lot 3 DP 72132, Lot 1 DP 74061 BLKS III VII Leeston SD  Not in proposed plans but still assessed |
| Site Address / Legal Description | 966 Selwyn Road - Lot 1 DP 74801  1002 Selwyn Road - Lot 1 DP 26197 BLKS III VII Leeston SD   |
|                                  | 986 Selwyn Road - Lot 1 DP 491231  These additional properties were assessed due to current negotiations taking place for the acquisition of these properties.                      |
| <b>Current Land Use</b>          | Mixed – Agricultural, Horticultural and Residential   |
| Proposed Land Use                | A mixture of residential 10% produce consumption, commercial / industrial, recreational and high density residential.   |
| Site Area                        | The site is located to the southwest of Rolleston Township and comprises of approximately 65 hectares of rural zoned land.  |
| Territorial Authority            | Selwyn District Council (SDC)   |
| Zoning                           | OP - Outer Plains   |



| Item         | Description  |
|--------------|--|
| Geology      | The site has been regionally mapped by GNS to be underlain by dominantly brownish - grey river alluvium, comprising gravel, sand and silt (Forsytyh et al., 2008).   |
| Topography   | The site is generally flat.  |
| Hydrology    | A surface water drain is located on site at 984 Selwyn Road which was in low flow at the time of the site investigation.  The nearest of site surface water body is Baileys Creek which is located approximately 1 km to the south of the site and is a small spring fed creek.  |
| Hydrogeology | Groundwater wells recorded on Canterbury Maps indicate that groundwater is likely to be present between $5-10\mathrm{m}$ bgl. Ground water generally flows from the west to the east beneath the site.   |
| Consents     | <ul> <li>Current Consents on investigated properties.</li> <li>CRC250384 - Water Permit (s14) – To take and use groundwater at Selwyn Road, Rolleston</li> <li>CRC980986.1 - Water Permit (s14) – To take and use ground water for irrigation at Selwyn Road, Rolleston</li> <li>CRC962430 – Water Permit (s14) – To take and use ground water for irrigation at Selwyn Road, Rolleston</li> <li>There are no current discharge consents on site.</li> </ul> |

# 3 Site History

ENGEO reviewed aerial photographs, property file documentation and Canterbury Regional Council's response to a contamination enquiry. Relevant information obtained during this review is summarised below.

# 3.1 Aerial Photographs

Aerial photographs dating from 1940 to 2019 have been reviewed (refer to Figure 2). The aerial photographs were sourced from Canterbury Maps. Relevant visible features on the site and surrounding area are summarised in Table 2 below.



**Table 2: Aerial Photograph Summary** 

| Date        | Description   |
|-------------|---|
| 1940 - 1944 | The area is predominantly being used as pastoral grazing land with visible river channelling across the area. There is a small, forested area located in the middle of a paddock at 966 Selwyn Road. A single dwelling is located at 1002 Selwyn Road and a series of sheds located to the north of the dwelling likely associated with the wider pastoral operations. No other structures are visible.  The surrounding area has similar land-use although there is a large tree plantation located to the north of the site.  |
| 1960 - 1964 | The area is generally unchanged and still being used as pastoral grazing land. However, the dwelling at 1002 Selwyn Road has been removed along with some of the sheds.  The plantation area to the north of the site has been cleared and replanted since the last image, with small trees in at a lower density in this area now.   |
| 1970 - 1974 | A second dwelling and small auxiliary buildings have been constructed at 986 Selwyn Road. A new dwelling has been constructed at 1002 Selwyn Road and three sheds have also been constructed to the north of it. No other major changes to the site use.  The forested area to the north of the site is filled with mature trees now. Further north, a series of large sheds which appear to be poultry sheds have been constructed.  |
| 1980 - 1984 | The area is still being used as pastoral grazing land; however, it appears that some minor paddocks have been reworked / planted with different crops based off the contrast in the historic aerial image.  The forested area to the north of the site has been thinned out and portions of it have been fully harvested.   |
| 1990 - 1994 | A third residential dwelling and associated buildings are now located on site at 966 Selwyn Road amongst the previously noted small, forested area in the middle of the paddock. A series of smaller paddocks with small associated sheds on each have been established to the north of the dwelling at 1002 Selwyn Road, likely being animal shelters. The remainder of the wider area is still being used as pastoral grazing land.  No major changes to the surrounding land are noted.  |
| 2000 – 2004 | The residential dwelling at 966 Selwyn Road has had some alterations / extensions carried out on it. A number of paddocks appear to have been converted to horticultural / orchard use at both 984 and 986 Selwyn Road. The previously noted shed associated with the newly formed paddocks at 1002 Selwyn Road have been removed and the area returned to general grazing. Although some machinery and items are visible surrounding a number of sheds. The majority of the surrounding area is still being used as pastoral grazing land.  A large amount of silage is being stored in the neighboring paddock located to the northwest of 984 Selwyn Road. |



| Date        | Description   |  |
|-------------|---|--|
| 2010 - 2014 | Some minor additions, including a swimming pool, are noted at 966 Selwyn Road. The horticultural / orchard area at 984 Selwyn Rd is now established with a shed also constructed. All previously noted horticultural uses at 986 appear to have ceased and have been returned to pastoral use. There are a lot of mixed items accumulating around the sheds at 1002 Selwyn Road. This area could be used for scrap yarding or recycling.  The forested area to the north of the site has been completely cleared and two large center pivot irrigators have been installed. This area has also been left exposed and is likely to be used for pastoral use. |  |
| 2015 - 2019 | There are no significant changes to the site and surrounding land use. All paddocks look appear to be very dry.  There is a stock yard setup in one of the paddocks along Edwards Road.   |  |

# 3.2 Property File Review

The property file held by Selwyn District Council was received on 4 March 2025. A summary of the information potentially relevant to this investigation is provided in Table 3 below. The consent overview have been included in Appendix 1, full property files are available upon request.

**Table 3: Property File Summary** 

| Property        | Date     | Description  |
|-----------------|----------|--|
| 966 Selwyn Road | 14/08/91 | Building Permit H044161: Relocate Dwelling: A building permit for the relocation of an 80-year-old weatherboard clad, corrugated iron roof property from an Ashburton property to site. This also included reinstatement of roof, replacement of subfloor framing and rotten floorboards, plumbing fit out, soak hole and septic tank. |
|                 | 9/10/95  | Building Consent R414442: Dwelling Addition: The construction of living room and bathroom to the existing residential dwelling. This also included the addition of a spa pool and associated fencing.  |
|                 | 19/06/02 | Building Consent 020294: Dwelling Additions and Alterations (Bathroom, WC, Lobby and Entry passage Extension): The construction of additions and alterations to the existing residential dwelling.   |



| Property         | Date     | Description  |
|------------------|----------|--|
|                  | 18/10/06 | Building Consent 061439: Domestic<br>Swimming Pool and Fencing: The installation<br>of a 40 m² domestic inground fiberglass pool<br>and associated fencing. Any pool water<br>discharged should be within the property<br>boundary and not to the septic tank. |
|                  | 21/08/14 | Building Consent 141650: Farm Building: The construction of a total span steel framed enclosed "heritage barn" that is clad out of steel sheeting.   |
| 984 Selwyn Road  | 20/01/25 | Building Consent 050027: Barn  The construction of a Strong Built kit set 3 bay farm building. The building is clad with corrugated iron and three roller door entrances.  |
| 986 Selwyn Road  | 14/11/73 | Building Permit 771: Plumbing  |
|                  | 17/12/73 | Building Permit F46399: Relocate Dwelling  |
|                  | 21/01/74 | Building Permit F46418: Erect Garage   |
|                  | 22/04/74 | Building Permit F46522: Alterations and Additions to Dwelling  |
|                  | 21/01/80 | Building Permit J020546: Erect Hayshed   |
|                  | 18/01/89 | Building Permit C001892: Erect Garage / Workshop   |
|                  | 8/03/93  | Building Consent R410858: Dwelling<br>Alterations (CCC Issued 12/08/93): Extension<br>to the existing dwellings lounge.  |
| 1002 Selwyn Road | 24107167 | Building Permit A010230: Erect Poultry House: The construction of a concrete foundation with iron walls and roof poultry building.   |
|                  | 24/07/67 | Building Permit A010231: Erect Piggery: The construction of a concrete foundation with concrete block walls and iron roof piggery building.  |
|                  | 10/10/67 | Building Permit A012110: Erect Store Shed:<br>The construction of a concrete foundation<br>with iron walls and roof store shed.  |



| Property | Date     | Description  |
|----------|----------|--|
|          | 8/11/67  | Building Permit A012131: Erect Dwelling: The construction of a concrete foundation with concrete block walls and decramastic tile roof residential dwelling. |
|          | 9/04/69  | Building Permit B042830: Erect Pig Fattening Shed: Concrete foundation with concrete block walls and iron roof.  |
|          | 23/05/84 | Building Permit B087883: Install Kent Tile Fire: The installation of a fireplace to the residential dwelling on site.  |

#### 3.2.1 LLUR Enquiry

A LLUR statement was requested through Environment Canterbury (ECAN) to help determine if the site and neighboring sites have been used or are currently used for activities which have the potential to cause contamination. The LLUR did not identify any HAIL activity associated with our site. However, a number of the neighboring properties have identified HAIL activities associated with them. The LLUR statement has been included in Appendix 1.

During this request previous investigation reports were sourced and have been summarized in Section 3.3.

**Table 4: LLUR Property Statement Summary for Neighbouring Site** 

| Site Number | Location                                    | HAIL Activity  | Category         |
|-------------|---|--|------------------|
| 100929      | Corner of Edwards Road & Ellesmere Junction | G3 – Landfill Sites                                  | Not investigated |
| 118870      | 477 Swamp Road                              | A10 – Persistent<br>pesticide bulk<br>storage or use | Not investigated |
| 300139      | Dunns Cross Road Subdivision                |  | Verified HAIL    |

#### 3.3 Relevant Previous Reports

The following reports have been reviewed for information relevant to this investigation. The following reports are available upon request and are available through a LLUR request.

# 3.3.1 Coffey 2020. Rolleston West Residential Ltd, Rolleston West Plan Change. PSI (INV 269839)

Coffey Services were commissioned by Rolleston West Residential Ltd to carry out a preliminary site investigation to support a proposed plan change and future subdivision located off Dunns Crossing Road. The investigation was carried out on two sites (Holmes Block - Section 2 Survey Office Plan 480906 & Skellerup Block - Part Lot 4, Part Residential 1342, Part Rural Section 31354 & 31356, Block 111).



Although this investigation did not cover the current site, the Skellerup Block neighbors the current investigation site to the north which did identify potential HAIL activity:

A10 – Persistent pesticide bulk storage or use.

The investigation considered that the potential of contamination to soil from the identified potential sources of contamination is considered low. It was also considered unlikely that there is a risk to human health with the proposed plan change. However, to support the application of the resource consent a detailed site investigation (DSI) should be carried out to better characterize the contaminants in the soil.

Due to this investigation identifying the HAIL activity: A10 within the neighboring property immediately to the north of the site there is a low but potential risk for this activity to impact the site. With the potential application of pesticides on site there is the potential of spray drift on to neighboring sites.

# 3.3.2 Coffey 2021. Skellerup South Plan Change. PSI (INV 300034)

Tetra Tech Coffey were commissioned by Rolleston Industrial Developments Limited to carry out a preliminary site investigation to support the proposed Skellerup South Plan change and future residential subdivision for the 28 ha property located to the east of the current investigation site on the corner of Dunns Crossing Road and Selwyn Road.

The investigation identified the following actual or potential HAIL activities:

- A10 Persistent pesticide bulk storage or use (Agricultural use).
- H 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 of the environment (From orchard activities at 984 Selwyn Road).
- 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 (Laydown area and shed).

The investigation considered the potential of contamination to soil associated with the identified potential sources of contamination to be low to medium. For HAIL A10 a low to medium risk was considered based on a relatively long period of use, likely use of non-environmentally persistent chemicals in the paddocks and no investigation data to confirm concentrations. For HAIL H a low to medium risk was considered based on the likely use of sprays on the neighboring forestry, relatively long period of use and no investigation data to confirm concentrations. For HAIL I a low to medium risk was considered based on unknown materials being stored at the laydown shed area, a relatively short period of use (prior to 2008 – 2021) and no investigation data to confirm concentrations.

It was also considered unlikely that there is a risk to human health with the proposed plan change and subdivision if the potential sources of contamination are investigated and remediated. A DSI with targeted soil sampling from areas of concern was recommended prior to an earthworks consent being granted to characterize the levels of pesticides across the site.

There is a low but potential risk that the neighbouring forestry activities occurring along the boundary of our investigation area may have impacted the site.



#### 3.3.3 Fraser Thomas Limited 2021. Brookside Road Plan Change, Rolleston. PSI (INV 301494)

Fraser Thomas undertook a preliminary site investigation for the proposed rezoning of the site located at Brookside Road. The subject site (approx. 110 ha) is located to north of the current investigation site and includes the following properties: Lot 1 DP 82068, Lot 1 DP 72132, Lot 2 DP 72132, Lot 3 DP 20007 & Lot 4 DP 20007. The investigation identified the following actual or potential HAIL activities:

- A10 Persistent pesticide bulk storage or use (Poultry sheds).
- A17 Storage tanks or drums for fuel, chemicals or liquid waste (Above ground fuel tanks at Lot 4 DP 2007 & Lot 1 72132).
- E1 Asbestos products manufacture of disposal including sites with buildings containing asbestos products known to be in a deteriorated condition (Buildings present on site and suspected burial of ACM in pits).
- I Land subject to intentional or accidental release of hazardous substances in sufficient quantity that it could be a risk to human health or the environment (Building materials being buried, lead based paints, informal dosing during stock loading).
- G5 Waste disposal to land (excluding where biosolids have been used as soil conditioners)
   (On site wastewater disposal to fields from toilets and ablution block associated to the poultry farm).

The report concluded that the identified HAIL activities may trigger a resource consent due to the subdivision, change of land use and soil disturbance provisions in the NESCS. It was recommended that identified HAIL activities are further investigated and remediated, as necessary, as part of enabling (pre-construction) works prior to any bulk earthworks or other soil disturbance activities. If soil sampling identifies contamination above background and / or guideline levels, then a consent would be required and subsequently a site management plan.

The identified HAIL activities in this investigation are unlikely to impact the investigation site due the distance between sites and the localized nature of potential contamination identified in Fraser Thomas investigation.

#### 3.3.4 BECA 2023. Ellesmere to Pines Wastewater Pipeline. PSI (INV 360280)

Beca was commissioned by Selwyn District Council to carry out a preliminary site investigation for works relating to the proposed Ellesmere to Pines Wastewater Treatment Plan upgrade project. The proposed works include a new pump station downstream of Ellesmere WWTP ponds, pipeline from Ellesmere WWTP to Pines WWTP, a new pump station at Selwyn huts, Coes Ford and Chamberlains Ford, and a new connection to the existing Darfield to Pines WWTP pipeline. The investigation site encompassed approximately 38 km of land that is located approximately 2 km from our investigation site.

The investigation identified the following activities that may have impacted on site soils:

- G6 Waste recycling or waste or wastewater treatment (The Ellesmere and Pines WWTP).
- A10 Persistent pesticide bulk storage or use (Spray activities at Springston South Domain).
- F4 Motor vehicle workshops & G5 Waste disposal to land (Both relate to the historical waste spill on Beethams Road).



- H Any land 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 (Potential migration of petrol from Jack Service Centre, potential contaminant migration from electrical transformers at Doyleston Junction, potential contaminant migration at 464 Lake Road from foundry and service station operations, potential migration of contamination from closed landfills located at Selwyn Lake Road and the corner of Bethels and Ashley Dene Roads, livestock dips across the area).
- 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.

It was recommended that a DSI is undertaken to assess the presence of contaminants in soil and groundwater from the identified activities. Results from the DSI will help inform management and disposal of soil and groundwater in relation to human health and environmental receptors in the context of the proposed works.

Based on the proximity of this investigation area to the site it is unlikely that there would be any significant impacts from the HAIL activities identified on the site.

#### 3.3.5 BECA 2023. Ellesmere to Pines Wastewater Pipeline. DSI (INV 360283)

Following the completion of the PSI carried out by Beca in March 2023 a DSI was carried out with regards to similar / finalised proposed works. The PSI informed the scope of the intrusive investigation, which comprised of 15 test pit excavations, seven hand pits and ten boreholes, logging of soils and collection of representative soils samples for laboratory analysis was completed. Groundwater samples were also collected from the ten monitoring wells.

The former landfill at Edwards Road had targeted soil sampling undertaken and there was one reported sample with a chromium concentration above published background levels (BH13\_1.6). This is the only area covered by this DSI that is within close proximity of our site.

The following areas are not within close proximity of our site however are covered in the DSI.

Three areas on site had reported soil concentrations in exceedance of the adopted human health criteria for commercial / industrial land use. Asbestos was detected in the historical waste spill at Beethams Road above the adopted human health criteria. Concentrations of TPHs and BTEX at a borehole location adjacent to Jacks Service Centre were reported to exceed the adopted human health criteria. Arsenic concentrations at a test pit location associated to a historic livestock dip and drip paddock were above commercial / industrial human health criteria.

Environmental criteria was exceeded in five areas across the site and these included: Former farm properties / structures at Ellesmere WWTP, Beethams Road former vehicle operations and waste disposal, Jacks service centre, The Lake Road Livestock Dip and Springston South Domain.

Following these results, it was recommended that a CSMP and ESCP are implemented for site works to manage the risk to human health and the environment. Works in soils along Beethams Road is recommended to be undertaken as asbestos related works.

Based on the proximity of this investigation area it is unlikely that the identified HAIL activities will have any significant impacts on the site.



# 4 Current Site Conditions

The site walkover was completed on 7 May 2025 by an ENGEO Environmental Scientist. Observations of conditions present at the site are summarised in Table 4. Photographs taken during the site visit are included in Appendix 2.

**Table 4: Current Site Conditions** 

| Site Conditions         | Comments  |
|-------------------------|---|
|                         | 966 Selwyn Road   |
|                         | This is a 10 ha rural lifestyle property with residential dwelling, swimming pool, sheds and small cattle yard. The site was very tidy during the time of the walkover and there was one burn pit noted in the southeastern portion of the site. There is an asphalt driveway to the residential dwelling and shed.   |
|                         | 984 Selwyn Road   |
|                         | The site covers two land parcels covering approximately 23 ha. The northeast parcel is made up of an old orchard area and associated shed and shipping containers. The remainder of the site which extends down along Edwards Road is primarily used for agricultural grazing.  |
|                         | 986 Selwyn Road   |
| Overview                | This is a 1.9 ha semi-rural lifestyle property with residential dwelling and associated sheds. There is a chicken coop located to the east of the residential dwelling and a burn pit located in the paddock just north of the dwelling. There is a shingle driveway to the residential dwelling however majority of the site is grassed. The site was tidy at the time of the site walkover.                                   |
|                         | 1002 Selwyn Road  |
|                         | This is a 4 ha semi- rural residential lifestyle block with multiple buildings on site including a residential dwelling, workshops, a disused piggery building and smaller pig sheds in the paddocks. There is a significant amount of scrap vehicles and material located around the main shed area. The site is relatively flat and is primarily covered in grass, the site was very untidy at the time of the site walkover. |
|                         | Edwards Road  |
|                         | This covers 26 ha of grassed paddocks primarily used for cattle grazing. There is a cattle stockyard set up in the northern most paddock and there is silage storage along the southern boundary of the property.   |
| Surrounding Land<br>Use | The surrounding land use is predominantly agricultural. There is however a lot of redevelopments of rural land into residential subdivision occurring to the northeast of the site.   |
| 030                     | There are large centre pivot irrigators located in the paddocks to the south and north of the site.   |



| The residential dwelling and garage on site are constructed out of wooden weatherboards with a corrugated metal roof.  The shed located to the southwest of the residential dwelling is constructed out of corrugated metal.  984 Selwyn Road  There is an open front shed that is constructed out of corrugated metal, shipping containers and an old caravan located in this area.  986 Selwyn Road  The residential dwelling is finished with plaster clad and has a corrugated metal roof.  The shed located in the southeast corner of the site adjacent to the driveway is constructed out of corrugated metal and various other sheds on site match this construction.  1002 Selwyn Road  The residential dwelling is constructed out of concrete block, some wooden cladding and a corrugated metal roof.  The workshop shed buildings are constructed out of corrugated metal.  The disused piggery building located at 1002 Selwyn Road has presumed asbestos containing material (PACM) boards located on the exterior which are in poor condition. | Site Conditions | Comments   |  |  |  |
|--|-----------------|--|--|--|--|
| containing material (PACM) boards located on the exterior which are in poor  |                 | 966 Selwyn Road  The residential dwelling and garage on site are constructed out of wooden weatherboards with a corrugated metal roof.  The shed located to the southwest of the residential dwelling is constructed out of corrugated metal.  984 Selwyn Road  There is an open front shed that is constructed out of corrugated metal, shipping containers and an old caravan located in this area.  986 Selwyn Road  The residential dwelling is finished with plaster clad and has a corrugated metal roof.  The shed located in the southeast corner of the site adjacent to the driveway is constructed out of corrugated metal and various other sheds on site match this construction.  1002 Selwyn Road  The residential dwelling is constructed out of concrete block, some wooden cladding and a corrugated metal roof.  The workshop shed buildings are constructed out of corrugated metal. |  |  |  |
| GUIUIUII.  |                 | The disused piggery building located at 1002 Selwyn Road has presumed asbestos   |  |  |  |



| Site Conditions   | Comments  |
|---|---|
| Potential Sources of Contamination                            | Burn Piles  There are multiple burn pits across the land parcels, and these include the burn pit located in the southwest corner of 966 Selwyn Road, burn pit located to the north of the residential dwelling at 986 Selwyn Road and burn pit located just south of the shed at 986 Selwyn Road.  Uncontrolled Fill / Waste  There is a small pile of concrete rubble located in the eastern paddock of 966 Selwyn Road.  Scrap Yards  There is a lot of scrap material including metal and vehicles located around the sheds at 1002 Selwyn Road. This area is overgrown so potential surface soil contamination was unable to be visually assessed.  Existing Buildings  All buildings located on site at 1002 Selwyn Road are in deteriorated condition and have the potential to have asbestos and lead based paint products.  Above Ground Storage Tank  There is a 480L Diesel tank located at 966 Selwyn Road that is presumably used for a diesel heater system or emergency generator. There is the potential for spills and leaks when filling.  Orchard and Horticultural Areas |
|   | There is an existing orchard area located at 984 Selwyn Road that has presumably had the application of pesticides.   |
| Potential for On- or<br>Off-Site Migration of<br>Contaminants | There is a small drain / stream located on site which flows between the neighbouring properties and into the investigation site near the orchard area of 984 Selwyn Road. Minimal flow from west to east was observed at the time of the site walkover, although, there was some minor spill over / surface ponding observed in the orchard area next to the small drain. This drain may allow transportation within the site or also from neighbouring properties.  The large agricultural paddocks along Edwards Road show signs of being irrigated and there are large centre pivot irrigators located in the neighbouring property to the north of the site.  |
| Limitations   | The site walkover undertaken was non-intrusive and was limited to visual observations. Long grass was present around most properties and limited the observations made.   |

# 5 Potential HAIL Activities

#### 5.1 Summary of Findings

Based on the information reviewed as part of this environmental investigation and observations during the site walkovers the following potential sources of contamination have been identified, these locations are outlined in Figure 3:



- Due to the age of the site buildings, it is likely that asbestos products are present within other building materials. Construction materials containing asbestos may result in contamination of adjacent soils during cutting of asbestos-containing building material (e.g., for service installation) and weathering of exterior building material.
- The poultry shed and previous operations at 1002 Selwyn Road may have included the use of pesticides / insecticides for animal care.
- It is possible<sup>1</sup> that lead-based paint may have been used on buildings at the site, which has the potential to contaminate surrounding soils during maintenance activities (e.g. for service installation) and / or weathering of exterior building material.
- The scrap yarding and auto dismantling occurring on site at 1002 Selwyn Road has the potential to contaminate surrounding soils from various sources.
- The orchard trees located at 984 Selwyn Road may have had the application of pesticides in the past.
- A northern portion of 986 Selwyn Road appears to have been used as a horticultural area around 2004 – 2010 which may have had the application of pesticides in the past.
- The burn pits located at 986 and 966 Selwyn Road have the potential to release anthropogenic materials into the surrounding soils.
- There was a pile of concrete rubble located in the western paddock at 966 Selwyn Road.
- There is an Above Ground Storage Tank located at the rear of the residential property at 966
   Selwyn Road that appears to be used for a diesel burner.

#### 5.2 HAIL Activities

Based on the information in this report the following activities listed on the HAIL are of relevance to this investigation:

- HAIL ID E1: Asbestos product manufacture or disposal including sites with buildings containing asbestos products known to be in a deteriorated condition.
- HAIL ID 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.
- HAIL ID A10: Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds.
- HAIL ID G4: Scrapyards including automotive dismantling, wrecking or scrap yards.
- HAIL ID G5: Waste disposal to land.
- HAIL ID A17: Storage tanks or Drums for fuel, chemicals or liquid waste.

<sup>&</sup>lt;sup>1</sup> The use of white lead in paint was banned in 1979, however some special-purpose paints may still contain red lead. WorkSafe recommends that if a building was built in the 1980s or earlier, it is best to presume that it has been painted with lead-based paint.



-

# 6 Preliminary Conceptual Site Model

A PCSM has been developed to assess the potential exposure pathways present at the site. A contamination CSM consists of three primary components. For a contaminant to present a risk to human health or an environmental receptor, all three components are required to be present and connected. The three components of a CSM are:

- Source of contamination.
- An exposure route, where the receptor and contaminants come into contact (e.g., ingestion, inhalation, dermal contact).
- Receptor(s) that may be exposed to the contaminants.

The PCSM is summarised in Table 5.

**Table 5: Preliminary Conceptual Site Model** 

| Potential Source of Contamination  | Primary<br>Contaminants of<br>Concern             | Possible Extent of Contamination  | Potential<br>Pathway  | Potential Receptor  |
|--|---|---|---|---|
| Persistent pesticide uses in horticultural areas (HAIL ID: A10)          | Heavy metals and organochlorine pesticides (OCPs) | Shallow soil  | Soil ingestion,<br>inhalation of dust,<br>and / or dermal<br>contact          | Future site users / site redevelopment workers Surrounding residents  |
|  |   |   | Leaching of contaminants  | Surrounding<br>environment (Nearby<br>Ecological Receptors,<br>Groundwater and<br>Surface water in orchard<br>area) |
| Potential lead-based paint on former and existing buildings (HAIL ID: I) | Lead  | Shallow<br>soil within and<br>adjacent to current<br>and former<br>dwelling footprints    | Soil ingestion,<br>inhalation of dust,<br>and / or dermal<br>contact          | Future site users / site redevelopment workers Surrounding residents  |
|  |   |   | Leaching of contaminants  | Surrounding<br>environment (Nearby<br>Ecological Receptors &<br>Groundwater)  |
| Building materials<br>containing<br>asbestos<br>(HAIL ID: E1)            | Asbestos fines<br>and fibrous<br>asbestos         | Shallow<br>soil within and<br>adjacent to the<br>current and former<br>dwelling footprint | Inhalation of<br>asbestos fibres<br>released from<br>impacted soils /<br>dust | Future site users / site redevelopment workers Surrounding residents  |



| Potential Source of Contamination           | Primary Contaminants of Concern                                    | Possible Extent of Contamination                                 | Potential<br>Pathway  | Potential Receptor  |
|---|--|--|---|---|
| Scrapyards<br>(HAIL ID: G4)                 | Heavy metals and Hydrocarbons  Asbestos fines and fibrous asbestos | Shallow soils<br>around car<br>dismantling and<br>scrapyard area | Soil ingestion,<br>inhalation of dust,<br>and / or dermal<br>contact          | Future site users / site redevelopment workers Surrounding residents            |
|   |  |  | Leaching of contaminants  | Surrounding<br>environment<br>(Nearby Ecological<br>Receptors &<br>Groundwater) |
|   |  |  | Inhalation of<br>asbestos fibres<br>released from<br>impacted soils<br>/ dust | Future site users / site redevelopment workers Surrounding residents            |
| Waste Disposal to<br>Land<br>(HAIL ID: G5)  | Heavy metals,<br>Asbestos &<br>Hydrocarbons                        | Shallow soils in<br>burn pile area and<br>rubble pile            | Soil ingestion,<br>inhalation of dust,<br>and / or dermal<br>contact          | Future site users / site redevelopment workers Surrounding residents            |
| Storage tanks for<br>fuel<br>(HAIL ID: A17) | Heavy metals and<br>Hydrocarbons                                   | Shallow soils<br>around above<br>ground storage<br>tank          | Soil ingestion,<br>inhalation of dust,<br>and / or dermal<br>contact          | Future site users / site redevelopment workers Surrounding residents            |
|   |  |  | Leaching of contaminants  | Surrounding<br>environment<br>(Nearby Ecological<br>Receptors &<br>Groundwater) |



# 7 Regulatory Framework

#### 7.1 National Environmental Standards

The intent of the NESCS is to protect the human health of the site's end users and the surrounding populations. The NESCS outlines statutory obligations for the disturbance and removal of soil from site that may have been used for HAIL activities.

ENGEO has not been provided with proposed soil disturbance or disposal volumes. If earthworks will not meet the permitted activity criteria outlined in Regulation 8(3) of the NESCS, resource consent will be required. If soil contamination is present on site a Site Management Plan (SMP) to manage the handling of impacted soils will be needed to support a Resource Consent application. The SMP will outline procedures for the safe management of soils and unexpected discovery protocols, if additional contamination is encountered during works. It is likely that a Works Completion Report (WCR) will also be required as a condition of consent. The WCR will document the disposal location of removed soils and document that works were undertaken in accordance with the SMP.

#### 7.2 Selwyn District Plan

The NES prevails over the rules in the Partially Operative Selwyn District Plan (POSDP) except where the rules permit or restrict effects that are not dealt with in the NES. The POSDP does not include any rules more restrictive than those set out in the NES thus the District Plan provisions have not been considered further.

We note that there may be additional statutory obligations under the Selwyn District Plan (SDP). A resource consent planner should be consulted to scope for statutory obligations.

#### 7.3 Canterbury Regional Council Land and Water Regional Plan

In accordance with the Canterbury Regional Council's Land and Water Regional Plan 'contaminated land' is defined as:

Means land that has a hazardous substance in or on it that:

- (a) has significant adverse effects on the environment; or
- (b) is reasonably likely to have significant adverse effects on the environment.

Disturbance of a site with confirmed contamination is likely to require a consent. We note that there may be additional statutory obligations under the Canterbury Land and Water Regional Plan (LWRP, 2017. A resource consent planner should be consulted to scope for statutory obligations.

#### 8 Conclusions

ENGEO was engaged to complete a Preliminary Site Investigation ("PSI") of multiple land parcels located at the intersection of Edwards and Selwyn Road. The investigation includes the properties of 966, 984, 986 & 1002 Selwyn Road and also a separate land parcel along Edwards Road just north of 984 Selwyn Road. The objective of the PSI was to gather information relating to the currently zoned "Outer Plains" land and review any historical potentially contaminating activities on site to support a proposed land use change to a mix of end land uses which include commercial, aged care / retirement village, residential- medium to high density, schooling, public parks / reserves.



The works comprised of a site walkover on 7 May 2025, a review of available historical information regarding the current and past uses of the site, information on the surrounding area and adjacent properties.

The review of information identified that the site has been used for agricultural grazing from circa 1940, with a residential dwelling located at 1002 Selwyn Road. Construction of a poultry house and piggery building occurred on site circa 1967. The majority of the site continued to be used for agricultural grazing until 1970 when an additional dwelling was built on site at 986 Selwyn Road, another residential dwelling is relocated to 966 Selwyn Road in 1990.

There are some areas of concern that require further assessment and these are outlined below:

- The past or current use of a portion of the site as an orchard presents a potential area of concern. It appears that this area is no longer actively being used as an orchard however it is likely that this area has had persistent pesticide application in the past. (HAIL ID: A10).
- Due to the age of on site buildings, if these are to be demolished as part of the future residential subdivision, it is recommended that an asbestos demolition survey is completed. Additional sampling of the land surrounding the on site buildings for the presence of asbestos in soils is also recommended especially at 1002 Selwyn Road which has multiple buildings in deteriorated condition. It is also likely that these buildings have potential lead-based paints. (HAIL ID: E1 & HAIL ID: I).
- During the site walkover the scrap yarding on site at 1002 Selwyn Road was visually assessed
  and was determined to have likely contaminated surrounding soils. However, the extent of
  contamination is unknown without targeted soil sampling (HAIL ID: G4).
- During the site walkover there were multiple burn pits identified. Two located on site at 986
  Selwyn Road and one located on site at 966 Selwyn Road. The burn piles may contain or have
  previously contained anthropogenic materials which may have resulted in contamination to
  underlying soils. (HAIL ID: G5).

Based on the assessment undertaken there is no reason in regard to contamination which would result in the proposed plan change area from not being able to proceed with urbanization. It is likely that areas assessed are able to be remediated or mitigated.

#### 9 Recommendations

#### Detailed Site Investigation (DSI)

Based on the findings of this preliminary site investigation it is recommended that a detailed site investigation (DSI) is undertaken prior to any development proposals. Depending on timeframes between the publication of this report and further development work being undertaken, a DSI would be better implemented at the time redevelopment is proposed.

The purpose of the DSI would be to further assess the identified past and present HAIL activities. Intrusive soil sampling will assist in characterising the level of contamination that has occurred on site.

#### 9.1 Investigation and management options for identified HAIL activities

Taking into consideration the HAIL activities previously described above in Table 5 outlining investigation, remediation and management options for the identified HAIL activities are presented below.



Table 6: Investigation and Management Options for Identified HAIL Activities

| Potentially<br>Contamination<br>Activity                    | Distribution  | Investigation Appraisal  | Remedial Appraisal  | Management Appraisal   |
|---|---|--|---|--|
| Buildings / houses<br>with asbestos<br>containing material. | Within buildings / houses and localised surrounding soils.                                  | An asbestos survey should be undertaken on buildings prior to demolition. In addition, soils around buildings should be tested for asbestos during initial investigations. | Specific remedial activity may<br>be required under the<br>guidance of a licensed<br>asbestos assessor.   | Management may be required under the guidance of a licensed asbestos assessor.                             |
| Poultry shed / operations.                                  | Localised heavy metal contamination and organochlorine pesticides within surficial topsoil. | Will be targeted during additional investigations.   | Source contaminants possibly above human health screening criteria for residential land use.  Remedial activity will generally involve physical removal of contaminated material. | Exceedances of regional background concentrations will deem topsoil unsuitable for disposal as clean fill. |
| Lead based paints on current / previous site buildings.     | Localised heavy metal contamination within surficial topsoil and subsoil.                   | Will be targeted during additional investigations.   | Source contaminants possibly above human health screening criteria for residential land use.  Remedial activity will generally involve physical removal of contaminated material. | Exceedances of regional background concentrations will deem topsoil unsuitable for disposal as clean fill. |



| Potentially<br>Contamination<br>Activity              | Distribution  | Investigation Appraisal                            | Remedial Appraisal   | Management Appraisal   |
|---|---|--|--|--|
| Scrap yarding / auto dismantling.                     | Localised heavy metal and asbestos contamination within surficial topsoil and subsoil.      | Will be targeted during additional investigations. | Source contaminants possibly above human health screening criteria for residential land use.   | Exceedances of regional background concentrations will deem topsoil unsuitable for disposal as clean fill.   |
|   |   |  | Remedial activity will generally involve physical removal of contaminated material. Treatment of material prior to disposal may be required. | Options for <i>in situ</i> management if chosen would include: implementation of physical barriers such as a cap or impervious layer and / or developing the land with a different end land use (Commercial / Industrial). |
|   |   |  |  | If left in situ, contamination would need to be managed under a site management plan.  |
| Current and historical horticultural / orchard areas. | Localised heavy metal contamination and organochlorine pesticides within surficial topsoil. | Will be targeted during additional investigations. | Source contaminants possibly above human health screening criteria for residential land use.  Remedial activity will                         | Exceedances of regional background concentrations will deem topsoil unsuitable for disposal as clean fill.  Additional samples prior to  |
|   |   |  | generally involve physical removal of contaminated material.   | disposal may be requested by contractors / waste disposal facilities.  |



| Potentially<br>Contamination<br>Activity | Distribution  | Investigation Appraisal                            | Remedial Appraisal  | Management Appraisal  |
|--|---|--|---|---|
| Burn pits and concrete rubble.           | Localised heavy metal contamination within surficial topsoil and subsoil. | Will be targeted during additional investigations. | Source contaminants possibly above human health screening criteria for residential land use.  Remedial activity will generally involve physical removal of contaminated material. | Exceedances of regional background concentrations will deem topsoil unsuitable for disposal as clean fill.  Additional samples prior to disposal may be requested by contractors / waste disposal facilities. |
| Above ground storage tank.               | Localised heavy metal contamination within surficial topsoil and subsoil. | Will be targeted during additional investigations. | Source contaminants possibly above human health screening criteria for residential land use.  Remedial activity will generally involve physical removal of contaminated material. | Exceedances of regional background concentrations will deem topsoil unsuitable for disposal as clean fill.  Additional samples prior to disposal may be requested by contractors / waste disposal facilities. |



#### 10 Limitations

- i. We have prepared this report in accordance with the brief as provided. This report has been prepared for the use of our client, Jatinder Pal Singh, their professional advisers, and the relevant Territorial Authorities in relation to the specified project brief described in this report. No liability is accepted for the use of any part of the report for any other purpose or by any other person or entity.
- ii. The recommendations in this report are based on the ground conditions indicated from published sources, site assessments and subsurface investigations described in this report based on accepted normal methods of site investigations. Only a limited amount of information has been collected to meet the specific financial and technical requirements of the client's brief and this report does not purport to completely describe all the site characteristics and properties. The nature and continuity of the ground between test locations has been inferred using experience and judgement and it should be appreciated that actual conditions could vary from the assumed model.
- iii. Subsurface conditions relevant to construction works should be assessed by contractors who can make their own interpretation of the factual data provided. They should perform any additional tests as necessary for their own purposes.
- iv. This Limitation should be read in conjunction with the Engineering NZ / ACENZ Standard Terms of Engagement.
- v. This report is not to be reproduced either wholly or in part without our prior written permission.

We trust that this information meets your current requirements. Please do not hesitate to contact the undersigned on (03) 328 9012 if you require any further information.

Report prepared by

**Josh Green** 

**Environmental Scientist** 

**Andrew Baxter, CEnvP** 

Senior Environmental Scientist

Report reviewed by

Hazel Atkins, CEnvP

Associate Environmental Consultant



#### 11 References

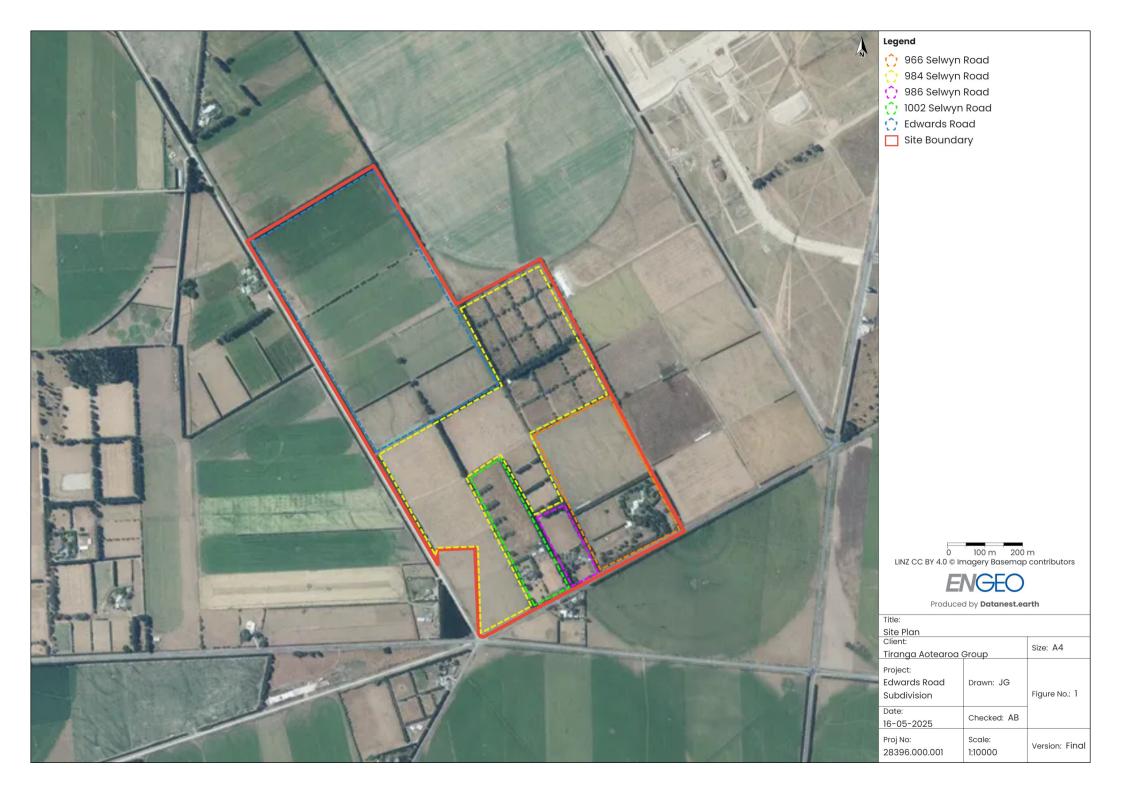
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# **FIGURES**





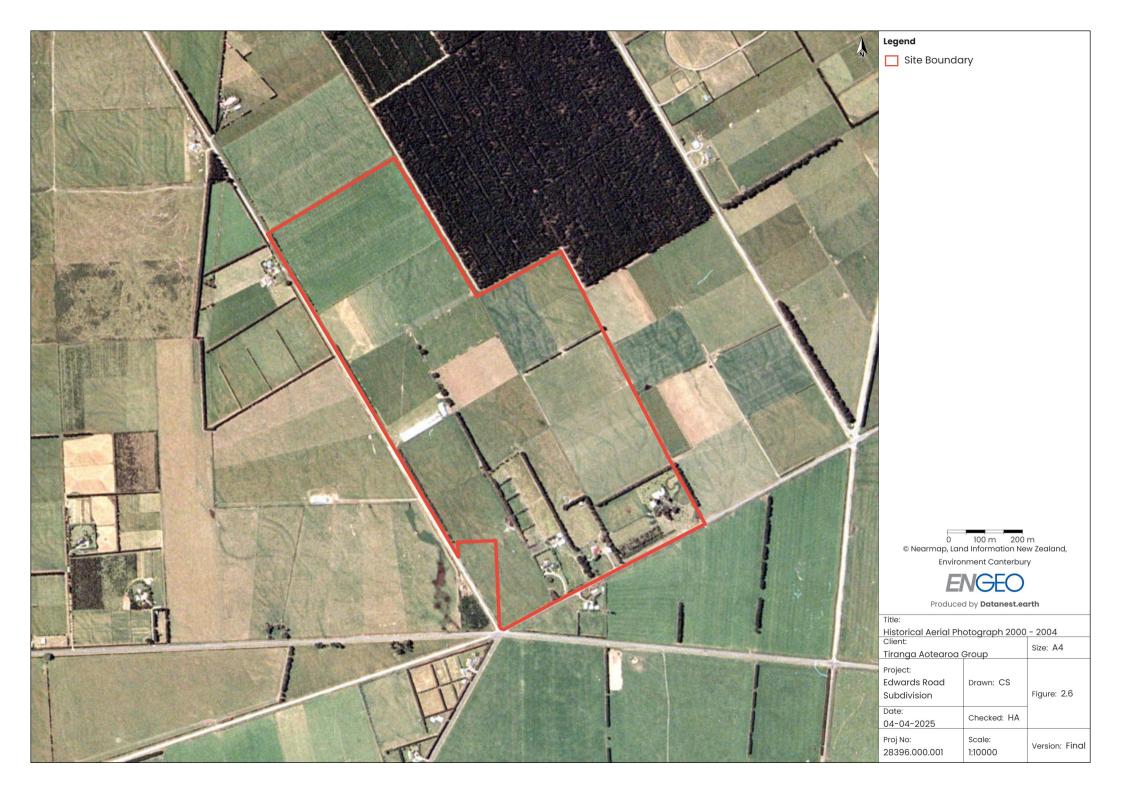




















## **APPENDIX 1:**

Reviewed Property Documentation





Customer Services
P. 03 353 9007 or 0800 324 636

PO Box 345 Christchurch 8140

P. 03 365 3828 F. 03 365 3194 E. ecinfo@ecan.govt.nz

www.ecan.govt.nz

### Dear Sir/Madam

Thank you for submitting your property enquiry from our Listed Land Use Register (LLUR). The LLUR holds information about sites that have been used or are currently used for activities which have the potential to cause contamination.

The LLUR statement shows the land parcel(s) you enquired about and provides information regarding any potential LLUR sites within a specified radius.

Please note that if a property is not currently registered on the LLUR, it does not mean that an activity with the potential to cause contamination has never occurred, or is not currently occurring there. The LLUR database is not complete, and new sites are regularly being added as we receive information and conduct our own investigations into current and historic land uses.

The LLUR only contains information held by Environment Canterbury in relation to contaminated or potentially contaminated land; additional relevant information may be held in other files (for example consent and enforcement files).

Please contact Environment Canterbury if you wish to discuss the contents of this property statement.

Yours sincerely

**Contaminated Sites Team** 

# **Property Statement from the Listed Land Use Register**



Visit ecan.govt.nz/HAIL for more information or contact Customer Services at ecan.govt.nz/contact/ and quote ENQ411158

Date generated: 02 April 2025 Land parcels: Lot 2 DP 74801

Lot 1 DP 26197 Lot 1 DP 74801 Lot 2 DP 72132 Lot 3 DP 72132 Lot 1 DP 491231 Lot 2 DP 491231 Lot 1 DP 20007 Lot 1 DP 74061



The information presented in this map is specific to the area within a 200m radius of property you have selected. Information on properties outside the serach radius may not be shown on this map, even if the property is visible.

## Sites at a glance



Sites within enquiry area

| Site number   | Name | Location | HAIL activity(s) | Category |  |
|---|------|----------|------------------|----------|--|
| Please note that the above table represents a summary of sites and HAILs intersecting the area of enquiry only. |      |          |                  |          |  |

## Nearby sites

| Site number | Name                                | Location              | HAIL activity(s)                      | Category         |
|-------------|-------------------------------------|-----------------------|---------------------------------------|------------------|
| 100929      | Cnr Edwards Rd & Ellesmere Junction | Cnr Edwards Rd &      | G3 - Landfill sites; Not Investigated | Not Investigated |
|             | Rd                                  | Ellesmere Junction Rd |                                       | Not investigated |
| 118870      | 477 Swamp Rd                        | 477 Swamp Rd          | A10 - Persistent pesticide            | Not Investigated |
|             |                                     |                       | bulk storage or use;                  |                  |
| 300139      | Dunns Crossing Road Subdivision,    | RS 25807 23614        | A10 - Persistent pesticide            | Verified HAIL    |

Rolleston bulk storage or use;

Please note that the above table represents a summary of sites and HAILs intersecting the area of enquiry within a 200m buffer.

### More detail about the sites

Site 100929: Cnr Edwards Rd & Ellesmere Junction Rd (Within 200m of enquiry area.)

Category: Not Investigated

Definition: Verified HAIL has not been investigated.

Location: Cnr Edwards Rd & Ellesmere Junction Rd

Legal description(s): RES 1045

HAIL activity(s): Period from Period to HAIL activity

49 ? Landfill sites

#### Notes:



There are no investigations associated with this site.

Site 118870: 477 Swamp Rd (Within 200m of enquiry area.)

Category: Not Investigated

Definition: Verified HAIL has not been investigated.

Location: 477 Swamp Rd Legal description(s): Lot 1 DP 41027

HAIL activity(s): Period from Period to HAIL activity

1984? Unknown Persistent pesticide bulk storage or use including sports turfs, market

gardens, orchards, glass houses or spray sheds

Notes:

5 Nov 2014 This record was created as part of the Selwyn District Council 2015 HAIL identification project.

5 Nov 2014 Greenhouses

5 Nov 2014 Area defined from 1984 aerial photographs. Horticultural activities (persistent pesticides) were noted in aerial photographs

reviewed.

Investigations:

There are no investigations associated with this site.

Site 300139: Dunns Crossing Road Subdivision, Rolleston (Intersects enquiry area.)

Category: Verified HAIL

Definition: The land-use / HAIL history has been confirmed.

Location: RS 25807 23614 Legal description(s): RS 23614,RS 25807

HAIL activity(s): Period from Period to HAIL activity

Unknown

Present

Present

Persistent pesticide bulk storage or use including sports turfs, market gardens, orchards, glass houses or spray sheds

### Notes:



INV 300034 Skellerup South Plan Change Preliminary Site Investigation

Tetra Tech Coffey - Preliminary Site Investigation

30 Sep 2021

### Summary of investigation(s):

Environment Canterbury has received a Preliminary Site Investigation report that includes all or part of the property you have selected.

A Preliminary Site Investigation seeks to identify potential sources of contamination resulting from current and historical land uses.

The preliminary site investigation may not have found any potential sources of contamination on the property you have enquired about. Where potential sources of contamination have been identified, a site identification number (e.g. SIT 1234) and land uses from the Hazardous Activities and Industries List (HAIL) will be shown on your statement.

This investigation has not been summarised.

## Nearby investigations of interest

INV 269839 Rolleston West Residential Ltd, Rolleston West Plan Change. Preliminary Site Investigation

Coffey Environments - Preliminary Site Investigation

9 Nov 2020

### Summary of investigation(s):

Environment Canterbury has received a Preliminary Site Investigation report that includes all or part of the property you have selected.

A Preliminary Site Investigation seeks to identify potential sources of contamination resulting from current and historical land uses.

The preliminary site investigation may not have found any potential sources of contamination on the property you have enquired about. Where potential sources of contamination have been identified, a site identification number (e.g. SIT 1234) and land uses from the Hazardous Activities and Industries List (HAIL) will be shown on your statement.

This investigation has not been summarised.

INV 301494 Brookside Road Plan Change, Rolleston, Preliminary Site Investigation - Contamination

Fraser Thomas - Preliminary Site Investigation

15 Oct 2021

### Summary of investigation(s):

Environment Canterbury has received a Preliminary Site Investigation report that includes all or part of the property you have selected.

A Preliminary Site Investigation seeks to identify potential sources of contamination resulting from current and historical land uses.

The preliminary site investigation may not have found any potential sources of contamination on the property you have enquired about. Where potential sources of contamination have been identified, a site identification number (e.g. SIT 1234) and land uses from the Hazardous Activities and Industries List (HAIL) will be shown on your statement.

This investigation has not been summarised.

INV 360280 Preliminary Site Investigation - Ellesmere to Pines Wastewater Pipeline

Beca Limited - Preliminary Site Investigation

22 Mar 2023

### Summary of investigation(s):

Environment Canterbury has received a Preliminary Site Investigation report that includes all or part of the property you have selected.

A Preliminary Site Investigation seeks to identify potential sources of contamination resulting from current and historical land uses.

The preliminary site investigation may not have found any potential sources of contamination on the property you have enquired about. Where potential sources of contamination have been identified, a site identification number (e.g. SIT 1234) and land uses from the Hazardous Activities and Industries List (HAIL) will be shown on your statement.

This investigation has not been summarised.

INV 360283 Detailed Site Investigation - Ellesmere to Pines Wastewater Pipeline

Beca Limited - Detailed Site Investigation

15 Nov 2023

### Summary of investigation(s):

Environment Canterbury has received a Detailed Site Investigation report that includes all or part of the property you have selected.

A DSI seeks to identify the type, extent and level of contamination (if any) in an area. Soil, soil-gas or water samples will have been collected and analysed.

This investigation has not been summarised.

### **Disclaimer**

The enclosed information is derived from Environment Canterbury's Listed Land Use Register and is made available to you under the Local Government Official Information and Meetings Act 1987.

The information contained in this report reflects the current records held by Environment Canterbury regarding the activities undertaken on the site, its possible contamination and based on that information, the categorisation of the site. Environment Canterbury has not verified the accuracy or completeness of this information. It is released only as a copy of Environment Canterbury's records and is not intended to provide a full, complete or totally accurate assessment of the site. It is provided on the basis that Environment Canterbury makes no warranty or representation regarding the reliability, accuracy or completeness of the information provided or the level of contamination (if any) at the relevant site or that the site is suitable or otherwise for any particular purpose. Environment Canterbury accepts no responsibility for any loss, cost, damage or expense any person may incur as a result of the use, reference to or reliance on the information contained in this report.

Any person receiving and using this information is bound by the provisions of the Privacy Act 1993.



## Listed Land Use Register

What you need to know



### Everything is connected

## What is the Listed Land Use Register (LLUR)?

The LLUR is a database that Environment Canterbury uses to manage information about land that is, or has been, associated with the use, storage or disposal of hazardous substances.

## Why do we need the LLUR?

Some activities and industries are hazardous and can potentially contaminate land or water. We need the LLUR to help us manage information about land which could pose a risk to your health and the environment because of its current or former land use.

Section 30 of the Resource Management Act (RMA, 1991) requires Environment Canterbury to investigate, identify and monitor contaminated land. To do this we follow national guidelines and use the LLUR to help us manage the information.

The information we collect also helps your local district or city council to fulfil its functions under the RMA. One of these is implementing the National Environmental Standard (NES) for Assessing and Managing Contaminants in Soil, which came into effect on 1 January 2012.

For information on the NES, contact your city or district council.

## How does Environment Canterbury identify sites to be included on the LLUR?

We identify sites to be included on the LLUR based on a list of land uses produced by the Ministry for the Environment (MfE). This is called the Hazardous Activities and Industries List (HAIL)<sup>1</sup>. The HAIL has 53 different activities, and includes land uses such as fuel storage sites, orchards, timber treatment yards, landfills, sheep dips and any other activities where hazardous substances could cause land and water contamination.

### We have two main ways of identifying HAIL sites:

- We are actively identifying sites in each district using historic records and aerial photographs. This project started in 2008 and is ongoing.
- We also receive information from other sources, such as environmental site investigation reports submitted to us as a requirement of the Regional Plan, and in resource consent applications.

<sup>1</sup>The Hazardous Activities and Industries List (HAIL) can be downloaded from MfE's website www.mfe.govt.nz, keyword search HAIL

## How does Environment Canterbury classify sites on the LLUR?

Where we have identified a HAIL land use, we review all the available information, which may include investigation reports if we have them. We then assign the site a category on the LLUR. The category is intended to best describe what we know about the land use and potential contamination at the site and is signed off by a senior staff member.

Please refer to the Site Categories and Definitions factsheet for further information.

## What does Environment Canterbury do with the information on the LLUR?

The LLUR is available online at <a href="www.llur.ecan.govt.nz">www.llur.ecan.govt.nz</a>. We mainly receive enquiries from potential property buyers and environmental consultants or engineers working on sites. An inquirer would typically receive a summary of any information we hold, including the category assigned to the site and a list of any investigation reports.

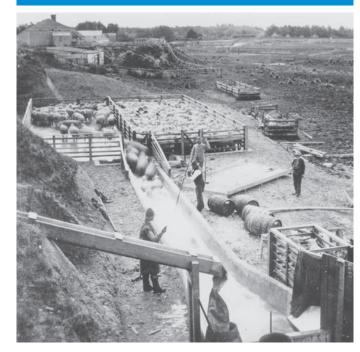
We may also use the information to prioritise sites for further investigation, remediation and management, to aid with planning, and to help assess resource consent applications. These are some of our other responsibilities under the RMA.

If you are conducting an environmental investigation or removing an underground storage tank at your property, you will need to comply with the rules in the Regional Plan and send us a copy of the report. This means we can keep our records accurate and up-to-date, and we can assign your property an appropriate category on the LLUR. To find out more, visit www.ecan.govt.nz/HAIL.



### **IMPORTANT!**

The LLUR is an online database which we are continually updating. A property may not currently be registered on the LLUR, but this does not necessarily mean that it hasn't had a HAIL use in the past.



Sheep dipping (ABOVE) and gas works (TOP) are among the former land uses that have been identified as potentially hazardous. (Photo above by Wheeler & Son in 1987, courtesy of Canterbury Museum.)

## My land is on the LLUR – what should I do now?

**IMPORTANT!** Just because your property has a land use that is deemed hazardous or is on the LLUR, it doesn't necessarily mean it's contaminated. The only way to know if land is contaminated is by carrying out a detailed site investigation, which involves collecting and testing soil samples.

You do not need to do anything if your land is on the LLUR and you have no plans to alter it in any way. It is important that you let a tenant or buyer know your land is on the Listed Land Use Register if you intend to rent or sell your property. If you are not sure what you need to tell the other party, you should seek legal advice.

You may choose to have your property further investigated for your own peace of mind, or because you want to do one of

the activities covered by the National Environmental Standard for Assessing and Managing Contaminants in Soil. Your district or city council will provide further information.

If you wish to engage a suitably qualified experienced practitioner to undertake a detailed site investigation, there are criteria for choosing a practitioner on <a href="https://www.ecan.govt.nz/HAIL">www.ecan.govt.nz/HAIL</a>.



## I think my site category is incorrect – how can I change it?

If you have an environmental investigation undertaken at your site, you must send us the report and we will review the LLUR category based on the information you provide. Similarly, if you have information that clearly shows your site has not been associated with HAIL activities (eg. a preliminary site investigation), or if other HAIL activities have occurred which we have not listed, we need to know about it so that our records are accurate.

If we have incorrectly identified that a HAIL activity has occurred at a site, it will be not be removed from the LLUR but categorised as Verified Non-HAIL. This helps us to ensure that the same site is not re-identified in the future.

## **Contact us**

Property owners have the right to look at all the information Environment Canterbury holds about their properties.

It is free to check the information on the LLUR, online at www.llur.ecan.govt.nz.

If you don't have access to the internet, you can enquire about a specific site by phoning us on (03) 353 9007 or toll free on 0800 EC INFO (32 4636) during business hours.

**Contact Environment Canterbury:** 

Email: ecinfo@ecan.govt.nz

Phone:

Calling from Christchurch: (03) 353 9007

Calling from any other area: 0800 EC INFO (32 4636)



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Promoting quality of life through balanced resource management.

www.ecan.govt.nz

E13/10

## Listed Land Use Register

## Site categories and definitions

When Environment Canterbury identifies a Hazardous Activities and Industries List (HAIL) land use, we review the available information and assign the site a category on the Listed Land Use Register. The category is intended to best describe what we know about the land use.

If a site is categorised as **Unverified** it means it has been reported or identified as one that appears on the HAIL, but the land use has not been confirmed with the property owner.

If the land use has been confirmed but analytical information from the collection of samples is not available, and the presence or absence of contamination has therefore not been determined, the site is registered as:

#### Not investigated:

- A site whose past or present use has been reported and verified as one that appears on the HAIL.
- The site has not been investigated, which might typically include sampling and analysis of site soil, water and/or ambient air, and assessment of the associated analytical data.
- There is insufficient information to characterise any risks to human health or the environment from those activities undertaken on the site. Contamination may have occurred, but should not be assumed to have occurred.

If analytical information from the collection of samples is available, the site can be registered in one of six ways:

#### At or below background concentrations:

The site has been investigated or remediated. The investigation or post remediation validation results confirm there are no hazardous substances above local background concentrations other than those that occur naturally in the area. The investigation or validation sampling has been sufficiently detailed to characterise the site.

#### Below guideline values for:

The site has been investigated. Results show that there are hazardous substances present at the site but indicate that any adverse effects or risks to people and/or the environment are considered to be so low as to be acceptable. The site may have been remediated to reduce contamination to this level, and samples taken after remediation confirm this.



#### Managed for:

The site has been investigated. Results show that there are hazardous substances present at the site in concentrations that have the potential to cause adverse effects or risks to people and/or the environment. However, those risks are considered managed because:

- the nature of the use of the site prevents human and/or ecological exposure to the risks; and/or
- the land has been altered in some way and/or restrictions have been placed on the way it is used which prevent human and/or ecological exposure to the risks.

### Partially investigated:

The site has been partially investigated. Results:

- demonstrate there are hazardous substances present at the site; however, there is insufficient information to quantify any adverse effects or risks to people or the environment; or
- do not adequately verify the presence or absence of contamination associated with all HAIL activities that are and/or have been undertaken on the site.

### Significant adverse environmental effects:

The site has been investigated. Results show that sediment, groundwater or surface water contains hazardous substances that:

- · have significant adverse effects on the environment; or
- are reasonably likely to have significant adverse effects on the environment.

#### Contaminated:

The site has been investigated. Results show that the land has a hazardous substance in or on it that:

- has significant adverse effects on human health and/or the environment; and/or
- is reasonably likely to have significant adverse effects on human health and/or the environment.

If a site has been included incorrectly on the Listed Land Use Register as having a HAIL, it will not be removed but will be registered as:

### Verified non-HAIL:

Information shows that this site has never been associated with any of the specific activities or industries on the HAIL.

Please contact Environment
Canterbury for further information:



## Building

| 8/03/93  | BUILDING CONSENT R410858: DWELLING ALTERATIONS: DWELLING: CCC Issued 12/08/93                     |
|----------|---|
| 18/01/89 | Building Permit C001892 ERECT GARAGE/WORKSHOP   |
| 21/01/80 | Building Permit <u>J020546</u> ERECT HAYSHED  |
| 22/04/74 | Building Permit F46522 ALTERATIONS & ADDITIONS TO DWELLING  |
| 21/01/74 | Building Permit F46418 ERECT GARAGE   |
| 17/12/73 | Building Permit <u>F46399</u> RELOCATE DWELLING   |
| 14/11/73 | Building Permit 771 PLUMBING  |
|          | BUILDING CONSENT 031448: RELOCATED TUNNELHOUSE - COMMERCIAL: Withdrawn 8/12/03                    |
|          | BUILDING CONSENT <u>202881</u> : Exemption: Marquee : : Circulated to Records for filing 18/12/20 |

## Building

| 21/08/14 | BUILDING CONSENT <u>141650</u> : Farm Building:: Issued/Granted 21/08/14   |
|----------|--|
| 18/10/06 | BUILDING CONSENT <u>061439</u> : DOMESTIC SWIMMING POOL: Domestic Swimming Pool with associated Fencing (40m2): Code Compliance Certificate issued 11/07/: Signed Off BTL - Tony Judd 23/07/07 |
| 19/06/02 | BUILDING CONSENT <u>020294</u> : DOMESTIC DWELLING ADDITIONS & ALTERATIONS: Bathroom.WC,lobby,and entry passage to extend: Special Note 18/12/07   |
| 9/10/95  | BUILDING CONSENT <u>R414442</u> : DWELLING ADDITION: DWELLING ADDITION: Code Compliance Certificate issued 28/01/97  |
| 14/08/91 | Building Permit H044161 RELOCATE DWELLING  |

NOTICE TO FIX  $\underline{\text{NF0953}}$ : The means of restricting unsupervised access into the spa pool does not comply with the Building Code, in breach of :: Notice

## Building

| 23/05/84 | Building Permit B087883 INSTALL KENT TILE FIRE          |
|----------|---|
| 9/04/69  | Building Permit <u>B042830</u> ERECT PIG FATTENING SHED |
| 8/11/67  | Building Permit A012131 ERECT DWELLING                  |
| 10/10/67 | Building Permit A012110 ERECT STORE SHED                |
| 24/07/67 | Building Permit A012031 ERECT PIGGERY                   |
| 24/07/67 | Building Permit A012030 ERECT POULTRY HOUSE             |



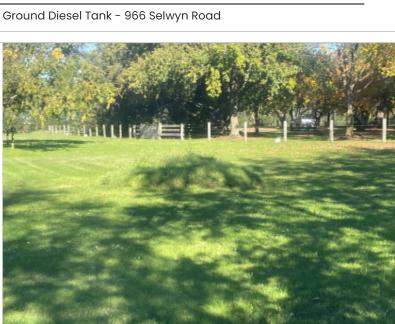
## **APPENDIX 2:**

Site Photographs





480L Above Ground Diesel Tank - 966 Selwyn Road



Rubble Pile - 966 Selwyn Road



Northern Paddock - 966 Selwyn Road



Residential Dwelling - 966 Selwyn Road





Rear of Barn Area - 966 Selwyn Road



Organic Waste Pile - 966 Selwyn Road



Burn Pit in Southern Paddock - 966 Selwyn Road

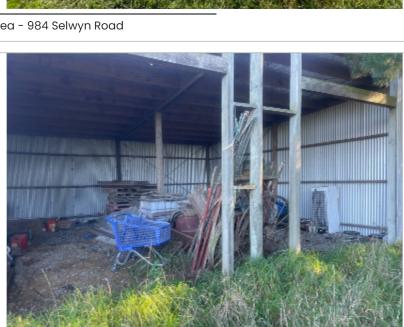


Cattle Yard - 966 Selwyn Road





Orchard Area - 984 Selwyn Road



Barn Area - 984 Selwyn Road



Surface Water Drain / Stream - 984 Selwyn Road

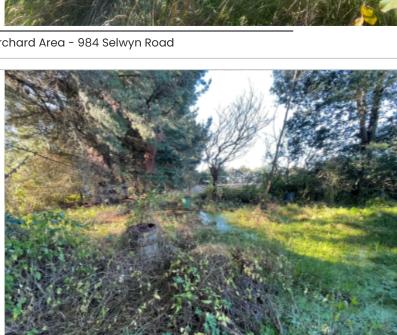


Water Tanks and Pump Area - 984 Selwyn Road





Northern Orchard Area - 984 Selwyn Road



Surface Water Ponding - 984 Selwyn Road



Barn Area - 984 Selwyn Road



Burn Pit - 986 Selwyn Road





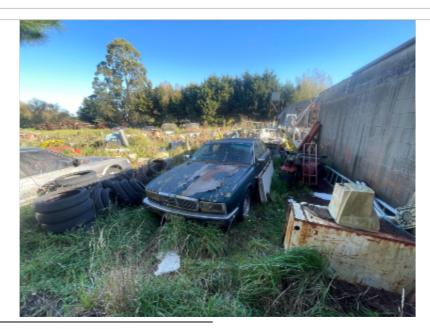
Pig Shed - 1002 Selwyn Road



Pig Shed - 1002 Selwyn Road



Scrap Yard - 1002 Selwyn Road



Scrap Yard - 1002 Selwyn Road





Shed - 1002 Selwyn Road





Residential Dwelling - 1002 Selwyn Road



Burn Pit - 1002 Selwyn Road





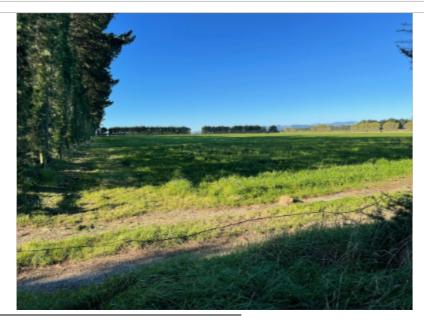
Cattle Yard - Edwards Road



Farm Rubbish - Edwards Road



Northern Paddock - Edwards Road



Northern Paddock - Edwards Road

