

# Land Information Memorandum **L252255**

## Application

Sonja Waine  
Birchfield Estates Limited  
270 Marshs Road  
RD 6  
Christchurch 7676

|                         |            |
|-------------------------|------------|
| <b>No.</b>              | L252255    |
| <b>Application date</b> | 25/09/2025 |
| <b>Issue date</b>       | 8/10/2025  |
| <b>Phone</b>            | 0272525200 |

## Property

|                          |                                  |
|--------------------------|----------------------------------|
| <b>Valuation No.</b>     | 2356120700                       |
| <b>Location</b>          | 555 Birchs Road                  |
| <b>Legal Description</b> | LOT 2 DP 33959 BLK I HALSWELL SD |
| <b>Owner</b>             | Birchfield Estates Limited       |
| <b>Area (hectares)</b>   | 8.6019                           |

The certificate of title submitted with this application, shows easements, covenants, encumbrances or caveats registered on the title, for further information a copy of these can be obtained from Land Information New Zealand 112 Tuam Street.

## Rates

### Rateable Value

The date of Selwyn's last General Revaluation was 1/09/24. For further information please contact Council's Rates Department.

|                         |              |
|-------------------------|--------------|
| <b>Revaluation Year</b> | 2024         |
| <b>Land</b>             | \$9,000,000  |
| <b>Capital Value</b>    | \$10,200,000 |
| <b>Improvements</b>     | \$1,200,000  |

### Current Rates Year 2025 to 2026

|                                         |              |
|-----------------------------------------|--------------|
| <b>Annual Rates</b>                     | \$ 22,997.10 |
| <b>Current Instalment</b>               | \$ 5,749.25  |
| <b>Current Year - Outstanding Rates</b> | \$ 11,785.95 |
| <b>Arrears for Previous Years</b>       | \$ 0.00      |
| <b>Next Instalment Due</b>              | 15/12/25     |

Next Revaluation Due 2027.

The rates listed for this property are correct as at the date of this report being issued.

If this property is vacant land, and the applicant intends building a house or making other improvements, additional rates and charges will be added. Such rates and charges are for the operation of the District libraries, local community centre and recreation reserves, sewerage and water systems and refuse collections and recycling.

If a ratepayer in the district purchases additional properties, that ratepayer maybe eligible for certain rating exemptions due to multiple ownership. The exemptions would only apply to uniform library charges on bare land blocks and an exemption from the uniform annual general charge if contiguous or same use land is purchased.

Please contact the Councils rates team if you require clarification on 0800 SELWYN (735 996).

Note: Rates are charged in four equal instalments for the period commencing 1 July and ending 30 June each year.

## Planning/Resource Management

### Partially Operative District Plan: MRZ

#### Operative District Plan Zoning: Lincoln Living Z

The Council has undertaken a review of the Operative District Plan and through this process it has developed a New District Plan ('The Partially Operative District Plan') which provides clear objectives, policies and rules to manage the effects of land use activities on the environment, but also sets a clear direction for our district's development and reflects our communities' needs and expectations. It also incorporates any changes in legislation, national and regional policy statements, environmental standards and other regulations.

The period for lodging appeals against decisions on the Partially Operative District Plan closed on the 6<sup>th</sup> of October 2023 and the Council released the Appeals Version of the Partially Operative District Plan on 27<sup>th</sup> November 2023. Many provisions in Partially Operative District Plan are now beyond challenge and are operative/treated as operative (pursuant cl 103 of Schedule 1 and s86F of the Resource Management Act (1991). The Operative District Plan now only applies where a relevant provision in the Partially Operative District Plan remains subject to appeal. For more information visit <https://www.selwyn.govt.nz/property-And-building/planning/strategies-and-plans/selwyn-district-plan/selwyn-district-plan-review>

1/07/24

Resource Consent 245532

Subdivision Consent Rc245532 Is Sought

To Undertake A Subdivision In A Flood Management

Overlay Creating 117 Residential Lots, 8 Reserve Lots,

8 Access Lots Vesting As Roads, 1 Utility Lot And 1 Balance Lot.

Decision Notified 9/06/25

Granted By Independent Commissioner(S) 9/06/25

|          |                                                                                                                                                                                                         |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27/06/24 | Resource Consent 245534<br>Land Use Consent Rc245534 Is Sought<br>For Land Use Non-Compliances Associated With Rc245532.<br>Decision Notified 9/06/25<br>Granted By Independent Commissioner(S) 9/06/25 |
| 21/09/18 | Resource Consent 185508<br>To Undertake A Subdivision To Create 86 Residential Lots. L/U185509<br>Withdrawn 25/08/23                                                                                    |
| 21/09/18 | Resource Consent 185509<br>To Carryout Earthworks Under Nes. S/D185508<br>Withdrawn 25/08/23                                                                                                            |
| 16/05/18 | Resource Consent 185264<br>To Undertake A Subdivision To Create Two Residential Lots<br>Section 224 Issued 14/09/18<br>Granted By Local Authority Officer 13/06/18                                      |
| 8/07/16  | Resource Consent 165376<br>To Erect A Second Dwelling.<br>Decision Notified 1/12/16<br>Granted By Local Authority Officer 1/12/16                                                                       |
| 20/05/10 | Resource Consent 105155<br>To Operate A Storage Facility Using Existing Barns<br>In The Inner Plains<br>Decision Notified 1/07/10<br>Granted By Local Authority Officer 1/07/10                         |
| 25/10/01 | Resource Consent R305208<br>To Erect Dwg On 8 Ha In Inner Plains<br>Decision Notified 3/05/02<br>Granted By Independent Commissioner(S) 3/05/02                                                         |

## Planning Notes

The information provided on this LIM has come from the information lodged against the property file/information and GIS at the time of processing. Please note that the resource consents, fill certificates and other relevant property files listed are based on what is available on our general property information, and that there may be other documents for the property which have not yet been added to the property record.

Resource Consents often contain a multitude of information and reports that are not ordinarily separately referenced or included in the LIM itself. Information identifying each (if any) special feature or characteristic of the land concerned, including but not limited to potential erosion, falling debris, subsidence, slippage, alluvion, or inundation, or likely presence of hazardous contaminants.

Preliminary Site Investigation Reports, Detailed Investigation Site Reports and Geotechnical Reports are submitted as part of the subdivision Resource Consent Process it is not likely to be currently of relevance in relation to the "land concerned", otherwise it would be elsewhere noted on the LIM to the extent any issues still apply following subdivision).

Any resource applications or consents that may contain information relating to the land which is not otherwise included in the LIM, including Geotechnical, Environmental and other expert reports, can be obtained via Selwyn District Council Information Management team on [information.management@selwyn.govt.nz](mailto:information.management@selwyn.govt.nz)

DEV-LI3: This property has been identified in the Partially Operative District Plan as being located within a Development Area which spatially identifies and manages an area where additional place-based provisions may apply to subdivision and development. For further information visit <https://eplan.selwyn.govt.nz/review> or contact the duty planner on 0800 SELWYN (0800735996)

## Building

|          |                                                                                                                                            |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 1/12/16  | Building Consent 161118<br>6 Bedroom Domestic Dwelling With Attached Garage & Swimming Pool<br>Code Compliance Certificate Issued 24/10/18 |
| 14/11/02 | Building Consent 021364<br>Domestic Dwelling & Solid Fuel Heater<br>Code Compliance Certificate Issued By Certifier Kelvin Newman 29/08/03 |

Code Compliance Certificates issued by Certifiers are held by the Council for information purposes only. Anyone that wishes to rely on a Certifiers Code Compliance Certificate will need to determine for themselves the accuracy and authenticity of the document.

Building Consent 020922  
Domestic Dwelling  
Withdrawn



12/03/02                      Building Consent 020212  
Farm Building

No code compliance certificate has been issued by Selwyn District Council for this building consent.

Additional building work and inspections may be needed before a full code compliance certificate can be issued.

More information is available on the attached inspection report dated 29/05/02.

27/07/01                      Building Consent 010944  
Implement Shed  
Code Compliance Certificate Issued 11/09/01

8/03/00                      Building Consent 001172  
Hay Shed  
Code Compliance Certificate Issued 28/04/00

Building Consent 001066  
Dwelling  
Withdrawn

24/07/87                      Building Permit E074631  
Erect Deer & Hayshed  
Permit only

Building Permit 1291  
Drainage For Septic Tank  
Permit only

No Code Compliance Certificate is required for a Building Permit. For those Building Consents with numbers that follow on from R410707 a Code Compliance Certificate is required. Consent R410707 is the first Building Consent issued by this Council which was not necessarily for this property.

Buildings erected prior to 1965 may not have a building permit record or had inspections carried out.

All building products and materials have a designed life, and must be maintained in accordance with the manufacturer's specifications.

In the case of building permits and building consents no further inspections have been carried out by the council since these structures were completed.

Any concerns of this nature should be referred to an organization that carries out property checks or the product manufacturers.

## **Schedule 1 Exempt Building Work**

Under section 42A of the Building Act 2004 building owners can carry out certain types of building work specified in Schedule 1 of the Building Act 2004 without need to obtain building consent approval. Where Council holds any information provided by a property owner in relation to exempt works undertaken on the property it is important to note that Council do not check or review the documentation for compliance, it is simply filed for record keeping purposes and not to satisfy any statutory obligation. Any information held of this nature has been provided at Councils discretion under Section 44A (3) of the Local Government Official Information and Meetings Act 1987 without any representation or warranty.

## **Services**

### **Water**

Council water scheme is available, but not connected.

This property has metered water supply not connected to the Lincoln Scheme. For any further information, please contact [water.services@selwyn.govt.nz](mailto:water.services@selwyn.govt.nz).

The Selwyn District Council Water Bylaw 2008 is applicable. A copy can be found at <http://www.selwyn.govt.nz/your-council/bylaws/current-bylaws>

Please note this property has a water meter and charges are a rate which are payable by the property owner. Therefore, please ensure a meter reading is requested on settlement so you are not liable for previous owner's water charges. Solicitors must ensure that when settling rates with Council on the sale of a property that water meter charges are also included in the settlement calculation.

The water supply is metered and billed 6 monthly for every cubic meter of water used.

Commercial properties are required to have an RPZ backflow device. This must be installed just inside the boundary of the property at the point of water supply – this backflow device will be owned by the property owner and will be maintained under the building compliance schedule in addition to any other on-site backflow devices deemed necessary by the building department.

If, during a Civil Defence emergency event the water supply is not operational, Council's immediate focus for its staff and resources will be to bring the supply back into operation. Depending on the size and scale of the event, it may be difficult to meet everyone's needs so property owners are asked to take personal responsibility for drinking water.

As a precaution, the Council would also recommend from a drinking water perspective that a property owner also has bottled water available to meet their immediate drinking water needs of all individuals living on the property for a 72hr period (the recommended amount is 4 litres of water per person per 24hrs).

For those properties not connected to a Council reticulated water supply, it is encouraged that the quality of the domestic water supply be regularly tested to ensure that it is to a potable standard. If the same water supply is also used for irrigation or stock water, check that there is a backflow protection device to prevent any contamination of water supply.

## **Sewer**

Council sewer scheme is available, but not connected.

For those properties not connected to a Council reticulated sewer system, it is important that the effluent system is regularly checked and maintained. You should also be aware of the limits on what can and should not be disposed of through these systems. Any concerns should be referred to an organization that carries out checks and maintenance or the product manufacturers.

## **Stormwater**

Stormwater to soak hole and or land drainage available

This property may be located within an area covered by Environment Canterbury stormwater consent. It is the responsibility of the property owner to contact Environment Canterbury customer services to ensure that any activity undertaken on site complies with the relevant consent conditions.

Note – the above describes the current roof water disposal type and does not reflect the future situation, which should be determined as part of the subdivision (if applicable). For more information please contact Council.

### **Copy of drainage plan attached.**

*If you have any questions about the Water, Sewage or Stormwater information above please contact the Selwyn District Council Water Department at 0800 SELWYN or [contactus@selwyn.govt.nz](mailto:contactus@selwyn.govt.nz)*

## **Drains**

An Environment Canterbury classified drain runs through or adjacent to this property. This may have implications on the landowner's use of this land. For further information regarding structures, fencing and planting (all within 7.5 metres of the drain); stock access, and maintenance requirements please contact the Central Area Senior Engineering Officer at Environment Canterbury – phone 03 365 3828.

## Kerbside Waste Collections

The Council provides refuse and recycling collection services for most residential and rural residential properties where these properties occur alongside maintained public roads. Private roads and Right of Ways (as maybe referenced in the Transportation Notes pertaining to this LIM) will not be directly serviced as these access ways are not usually of a sufficient standard to be used safely and efficiently by the collection vehicles. This could also apply to other public roads or streets that are narrow and/or have a lack of vehicle turning facilities. Rural and high country areas and settlements are not covered by regular collection services however localised refuse drop off facilities maybe available for use in specific areas. For further details and advice on refuse collection and recycling services as they may pertain to the property please phone the Council's Asset department on phone 3472 800.

### Selwyn District Council - Collection Days & Routes

If your address shows “no results found”, this means

- your property is not serviced directly by kerbside collections, OR
- you have a new property and either:
  - o you have requested for your property to be added to the route and it is in the process of being added, OR
  - o you have not yet requested for your property to be added to the route, OR

Please contact Council for further detail.

## Land and Building Classifications

### Energy Infrastructure and Transport

The Partially Operative District Plan notes that electricity transmission or distribution lines pass over or near to this site. For further information visit <https://eplan.selwyn.govt.nz/review> or contact the duty planner on 0800 SELWYN (0800735996).

### Hazard and Risk

Reference: Plains Flood Management Overlay

This property is identified in the Partially Operative District Plan as being located within a Natural Hazard Overlay. For further information visit <https://apps.canterburymaps.govt.nz/SelwynNaturalHazards/> or contact the duty planner on 0800SELWYN (0800735996)

### Culture and Heritage

None known

## Natural Environment

None known

## District-wide matters

None known

## Area-specific matters

None known

## Land Notes

Land Notes: This property is within the area encompassed by the 2007 Christchurch, Rolleston, and Environs Transportation Study (CRETS). The published Strategy outlines a range of strategic transportation initiatives to cater for long term growth in this area of the district. This includes the upgrading of existing roads and the provision of new roads which may affect private property. Further information on this Study can be viewed on the Council's website [www.selwyn.govt.nz](http://www.selwyn.govt.nz) under "Transportation and Roding".

Land Notes: This property is located within the area encompassed by the Greater Christchurch Urban Development Strategy (UDS). The UDS is a joint initiative to plan and manage the growth of the Greater Christchurch Region over the next 35 years and is a partnership between the Christchurch City Council, Environment Canterbury, the Waimakariri District Council, Selwyn District Council, and Waka Kotahi NZ Transport Agency.

The Selwyn District Council is developing several strategic documents that seek to implement the UDS that may have an impact on this property in the future. Further information on Council projects can be found on the Council's website [www.selwyn.govt.nz](http://www.selwyn.govt.nz) or by contacting the planning department on 0800 SELWYN (0800735996).

Land Notes: An Environment Canterbury administered river protection scheme runs through or adjacent to this property. This may have implications on the landowner's use of land adjacent to the river. For further information regarding vegetation clearance, planting, erection of fencing or other structures, stock access and environment Canterbury maintenance requirements please contact the Area Engineer (Central) Officer at Environment Canterbury – phone 03 365 3828.

Land Notes: Council holds the Desk-based Ground Contamination Assessment Plan Change 7 Area report from Tonkin & Taylor dated January 2011. If you would like a copy of this report, please contact Selwyn District Council on 0800 735 996.

Land Notes: Council holds the following reports:

- 07/11/2016 – Geotechnical Investigation Report - Geoconsult

Please contact our Information Management Team at [Information.Management@selwyn.govt.nz](mailto:Information.Management@selwyn.govt.nz) for further information.

**Listed Land Use Register (LLUR):**

Hazardous activities and industries involve the use, storage or disposal of hazardous substances. These substances can sometimes contaminate the soil. Environment Canterbury identifies land that is used or has been used for hazardous activities and industries. This information is held on a publicly available database administered by Environment Canterbury called the Listed Land Use Register (LLUR). The Selwyn District Council may not hold information that is held on the LLUR, therefore, it is recommended that you check Environment Canterbury's online database at [www.llur.ecan.govt.nz](http://www.llur.ecan.govt.nz).

**Residential Swimming Pool****Residential Swimming Pool**

Council's Swimming Pool Register shows that there is a swimming pool/spa pool on this property.

The last recorded inspection for the swimming pool/spa on this property was on 03/04/25, and it complied

All residential swimming pools must have barriers that restrict access to the pool and immediate pool area by unsupervised children. The pool owner is responsible for ensuring barriers meet New Zealand Building Code clause F9 – Restricting access to residential pools.

Council is required to check the pool barrier at least once every three years to confirm they meet requirements. There will be a fee to cover the inspection and associated administration work.

Inspections can be completed by:

- a council inspector, or
- an Independently Qualified Pool Inspector (IQPI).

The pool owner must let council know if using an IQPI to do inspections and provide council with a copy of inspection records.

For more information on residential pools is available on Councils website or call 0800 SELWYN (0800735996).

**Land Transport Requirement**

Birchs Road is a sealed collector road maintained by Selwyn District Council.

## Special Land Features

|                                    | NZS3604:2011 | AS/NZS1170:2002 |
|------------------------------------|--------------|-----------------|
| <b>Wind Region</b>                 | A            | A7              |
| <b>Snow Zone</b>                   | N4           | N4 Sub-alpine   |
| <b>Earthquake</b>                  | Zone: 2      | Z Factor: 0.3   |
| <b>Approximate Altitude (Amsl)</b> | 14m          | -               |
| <b>Exposure Zone</b>               | C            | -               |

### *Exposure Zone Descriptions*

#### Zone B: Low

Inland areas with little risk from wind blown sea-spray salt deposits

#### Zone C: Medium

Inland coastal areas with medium risk from wind blown sea-spray salt deposits. This zone covers mainly coastal areas relatively low salinity. The extent of the affected area varies significantly with factors such as winds, topography and vegetation.

#### Zone D: High

Coastal areas with high risk wind blown sea-spray salt deposits. This is defined as within 500 m of the sea including harbours, or 100 m from tidal estuaries and sheltered inlets.

## Flooding

Flood Management Area - 500 year event

The Council is undertaking a District Plan Review and through this process the Council has obtained and holds information showing that this property may be susceptible to flooding from the Selwyn River and/or in heavy rainfall events. The two reports are outlined below and can be found at <https://apps.canterburymaps.govt.nz/SelwynNaturalHazards/>:

ECan report R19/41 – Selwyn River/Waikirikiriri floodplain investigation. The report identifies areas that may be affected by flooding from the Selwyn River/Waikirikiriri.

DHI Water and Environment Ltd report – Regional Policy Statement Modelling for SDC – District Plan. The report identifies areas that may be affected by flooding in heavy rainfall events in the Selwyn District. For more information, please contact the Selwyn District Council: phone: 0800 SELWYN (735 996), email [contactus@selwyn.govt.nz](mailto:contactus@selwyn.govt.nz) or visit 2 Norman Kirk Drive, Rolleston.

Flooding: Council records show that this property experiences surface run off/ponding during heavy rainfall events that impacts the driveway and section of this property. There is no record of watering entering the property.

**Alluvion**

None known

**Avulsion**

None known

**Erosion**

None known

**Land Fill**

This site may contain areas of filled ground. Council does not hold site specific information on subsoil classifications or ground bearing capacities for this site. Therefore, if the applicant intends to erect a building on this property, they will need to carry out on site subsoil investigations to verify that 'Good Ground' can be achieved on the site and to determine the subsoil classification in accordance with NZS1170. Verification of site investigation data will need to be submitted as part of the documentation for a Building Consent.

**Slippage**

None known

**Ground Water Level**

Less than 30m below ground

**Soil Type**

Temuka deep silt loam on clay loam

Wakanui deep silt loam

Temuka deep silt loam

**Liquefaction and Subsidence**

The site is located in a zone of variable susceptibility to liquefaction. For further information visit [www.ecan.govt.nz](http://www.ecan.govt.nz) and put '1702192' in the search box and select documents.

An assessment will need to be carried out on this site to establish the level of susceptibility to liquefaction. The scope of this investigation must be determined by a CPEng Geotechnical engineer and all testing shall be carried out under the guidance of the CPEng Geotechnical engineer. Furthermore, the ground bearing capacity in this area may not achieve the requirements of the NZ Building Code Clause B1, specific design may be required.



## Licences/Environmental Health

Flood Assessment Certificate FC250299

Licence issued 30/07/25

Expires 30/07/27

## Network Utility Operators

Information related to the availability of supply, authorisations etc. (e.g. electricity or gas) can be obtained from the relevant Network Utility Operator.

## Other Information

1. The applicant is advised that the Environment Canterbury may have other information in relation to this property including, but not limited to:
  - a) Discharge consents.
  - b) Well permits.
  - c) Consents to take water.
  - d) The existence of contamination and/or hazardous sites.
  - e) Flooding.
  - f) Clean air discharge compliance.

Further information may be obtained from Environment Canterbury by requesting a Land Information Request (LIR). To find out more contact the Environment Canterbury on 0800 ECINFO (0800 324 636) or at <http://www.ecan.govt.nz/>

2. The following further information is supplied on the basis set out in note 2 below.

## Notes

1. The information supplied in the sections of this report, other than 'Other Information', is made available to the applicant pursuant to Section 44A(2) of the Local Government and Official Information Act 1987 by reference to Council files and records. No property inspection, or title search, has been undertaken. To enable the Council to measure the accuracy of this LIM document based on our current records we would appreciate your response should you find any information contained herein which may be considered to be incorrect or omitted. Please telephone the Council on 0800 SELWYN (375 996).
2. The information or documents supplied to the applicant and referred to in the 'Other Information' section of this report has been supplied to the Council by property owners, their agents and other third parties. That information is made available pursuant to section 44A(3) of the Local Government and Official Information Act 1987 on the basis that:
  - a) The information may be relevant to the purposes for which this report is obtained;
  - b) The Council does not warrant or represent the accuracy or reliability of the information. If the subject matter of that information is important to the applicant it is recommended that relevant professional advice should be taken before reliance is placed upon that information.

3. The information included in the LIM is based on a search of Council records only and there may be other information relating to the land which is unknown to the Council. Council records may not show illegal or unauthorised building or works on the property. The applicant is solely responsible for ensuring that the land is suitable for a particular purpose.

4. Schedule 1 Exempt Building Work

Building owners can carry out certain types of building work without needing to obtain a building consent. This exempt building work is listed in Schedule 1 of the Building Act 2004.

It is the owners' responsibility to ensure that any exempt building work done complies with the Building Code and fits within the provisions of the schedule before they carry out the work.

Please note that Council do not check or review documentation for compliance where information on exempt work has been provided by a property owner to Council. This information is simply filed for record keeping purposes and not to meet any statutory obligation.

Any information of this nature held by Council has been provided at Councils discretion under Section 44A (3) of the Local Government Official Information and Meetings Act 1987 without any representation or warranty.

5. The Council has used its best endeavors to ensure that all information provided in this LIM report is correct and complete in all material respects. In the event that a material error or omission can be proven the Council's liability, whether in contract or in tort shall be limited to the fee paid to Council to obtain this report.
6. This information reflects the Selwyn District Council's current understanding of the site, which is based only on the information thus far provided to it and held on record concerning the site. It is released only as a copy of those records and is not intended to provide a full, complete or totally accurate assessment of the site. As a result the Council is not in a position to warrant that the information is complete or without error and accepts no liability for any inaccuracy in, or omission from, this information.
7. The information contained in this Land Information Memorandum is current at the date the memorandum is issued. Further relevant information may come into the Council's possession subsequent to the date of issue.

Information Management Team

Date: 08 October 2025

# LIM Report Legend

## Base Layers

### Road

— Road

### Railway

—+— Railway

### District Boundary

--- District Boundary

### Township Boundary

--- Township Boundary

### Ratepayer Information

□ Ratepayer Information

### Parcels

□ Parcels

## PODP - Zones and Precincts

### Precincts

■ Commercial Precincts

■ Industrial Precincts

■ Airfield Precincts

■ Rural Precincts

## Zones

- Large lot residential zone
- Low density residential zone
- General residential zone
- Medium density residential zone
- Settlement zone
- General rural zone
- Neighbourhood centre zone
- Local centre zone
- Large format retail zone
- Town centre zone
- General industrial zone
- Special purpose zone

## Zone and Water Services

### Water\_pt

- ▲ EQUIPMENT - BORE
- ▲ EQUIPMENT \_ GENERATOR
- ▲ EQUIPMENT - SAMPLE TAP
- ▲ EQUIPMENT - OTHER
- FACILITY
- ★ FIRE PLANT
- ⊕ HYDRANT
- ▲ IRRIGATION
- NODE
- OBSOLETE
- ⊕ SUPPLY POINT
- TANK
- ⊗ VALVE

## Water\_In

- DIM LINE
- DUCT
- IRRIGATION
- NON SDC SERVICE
- OBSOLETE
- OUTLINE
- PIPE - TREATED
- PIPE - UNTREATED
- PIPE - SEWER
- SITE\_BOUNDARY

### Sewer\_pt

- ◊ CHAMBER
- ▲ EQUIPMENT
- FACILITY
- MANHOLE
- NODE
- ⊗ VALVE

### Sewer\_In

- OUTLINE
- DIM LINE
- DUCT
- IRRIGATION
- NON SDC SERVICE
- OBSOLETE
- OUTLINE
- PIPE\_GRAVITY
- PIPE\_RISINGMAIN
- SITE\_BOUNDARY

## Storm\_pt

- CHAMBER
- ▲ EQUIPMENT
- FACILITY
- ✱ INLET/OUTLET
- ▣ MANAGEMENT
- MANHOLE
- NODE
- SOAKHOLE
- SUMP
- ⊗ VALVE

### Storm\_In

- CHANNEL
- DIM LINE
- MANAGEMENT
- NON SDC SERICE
- OBSOLETE
- OUTLINE
- PIPE
- SITE\_BOUNDARY
- ▲ Soakhole w/Hoz Soakage
- StopBank

### Storm\_py

- CATCHMENTS
- CONSENT AREA
- GROUNDWATER LESS 6M
- OUTLINE OF BASIN
- RATED AREA

## Stormwater Management Area

- Stormwater Management Area

## West Melton Observatory Zone

- West Melton Observatory Zone

## Planning Zones

- High Country
- Port Hills
- Existing Development Area
- Living 1
- Living 2
- Living 3
- Living X
- Living West Melton (North)
- Living Z
- Deferred Living
- Business 1
- Business 2
- Business 3
- Inner Plains
- Outer Plains
- Malvern Hills
- Key Activity Centre
- Living West Melton (South)

## Liquefaction Drains and Water Race

- ▲ GATE
- Site
- ▲ WEIR

### CDrain\_pt

- ▲ GATE
- Site
- ▲ WEIR

## CDrain\_In

- DRAIN
- ECan
- OUTLINE
- StopBank
- Site Boundary

### WRace\_pt

- DISCHARGE
- + DIVIDE
- △ EQUIPMENT
- GATE
- ▣ GRILL
- ✱ HEADWALL
- MANHOLE
- NODE
- ⊕ POND
- SITE
- SHAFT
- SOAKHOLE

### WRace\_In

- AQUEDUCT
- CULVERT
- ↔ DIM LINE
- EMERGENCY DISCHARGE
- INTAKE
- LATERAL
- LOCAL
- MAIN
- OBSOLETE
- OUTLINE
- SIPHON
- TUNNEL

## SDC Cleaned

- SDC Cleaned

## Project Extent

- Project Extent

## Boundary Between Liquefaction Assessment Zones

- Boundary Between Liquefaction Assessment Zones

## Liquefaction Susceptibility

- DBH TC Zoned Area
- Damaging liquefaction unlikely
- Liquefaction assessment needed

## Ecan River Protection Scheme

- Properties Beside Rivers
- ▲ Halswell Staff Gauges
- ◆ Halswell Floodgates
- Halswell Drainage

## Greendale Fault

- Greendale Fault 50m Buffer
- Fault Lines (GNS 2013)
- Folds (GNS 2013)

## Biodiversity

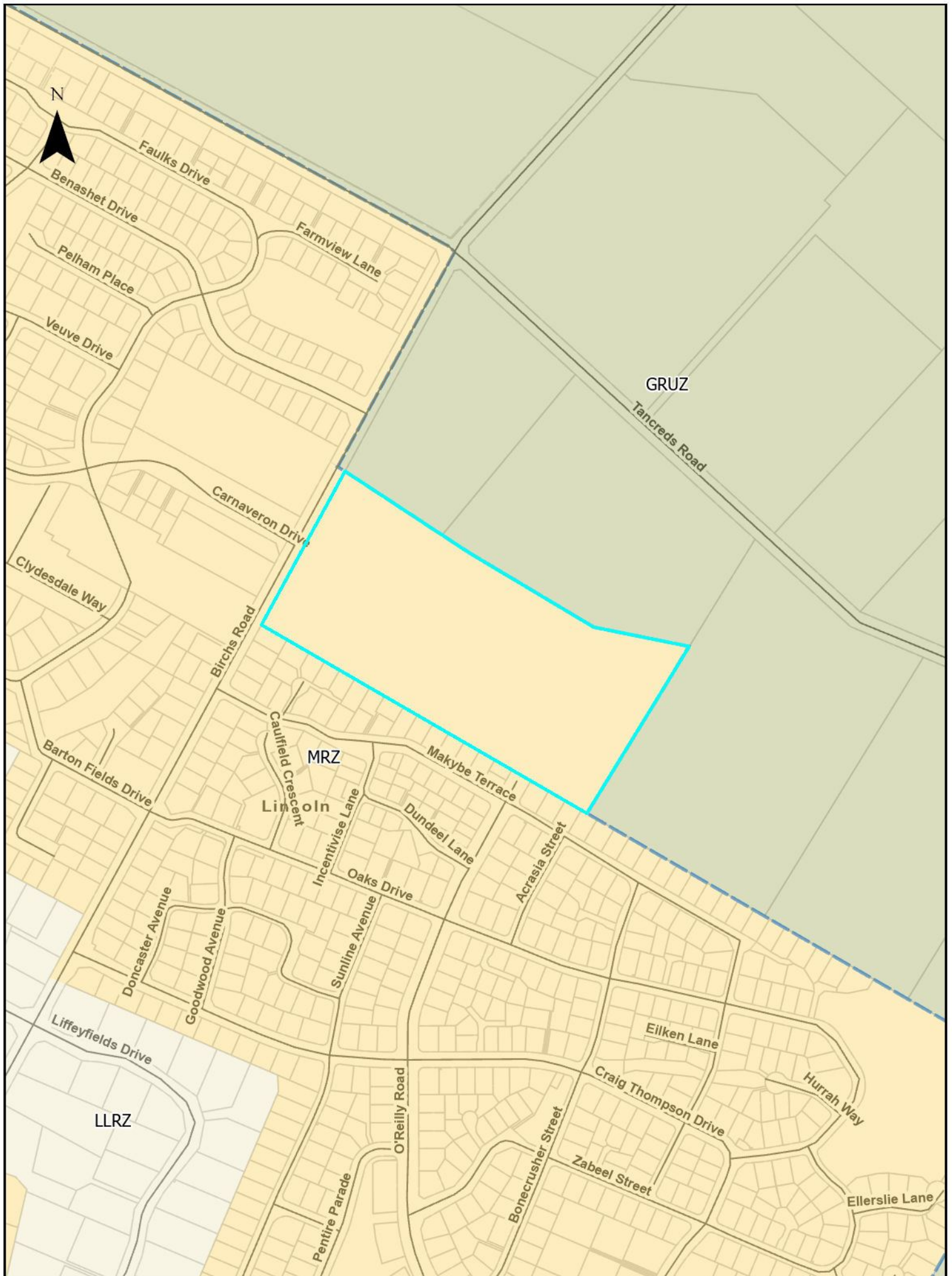
- ◆ Canterbury Plains SDC AB and C Classes
- Endangered Flora and Fauna
- Potentially Significant Sites
- Confirmed SNA Sites
- Significant Natural Areas (Final 115)



[illegible]

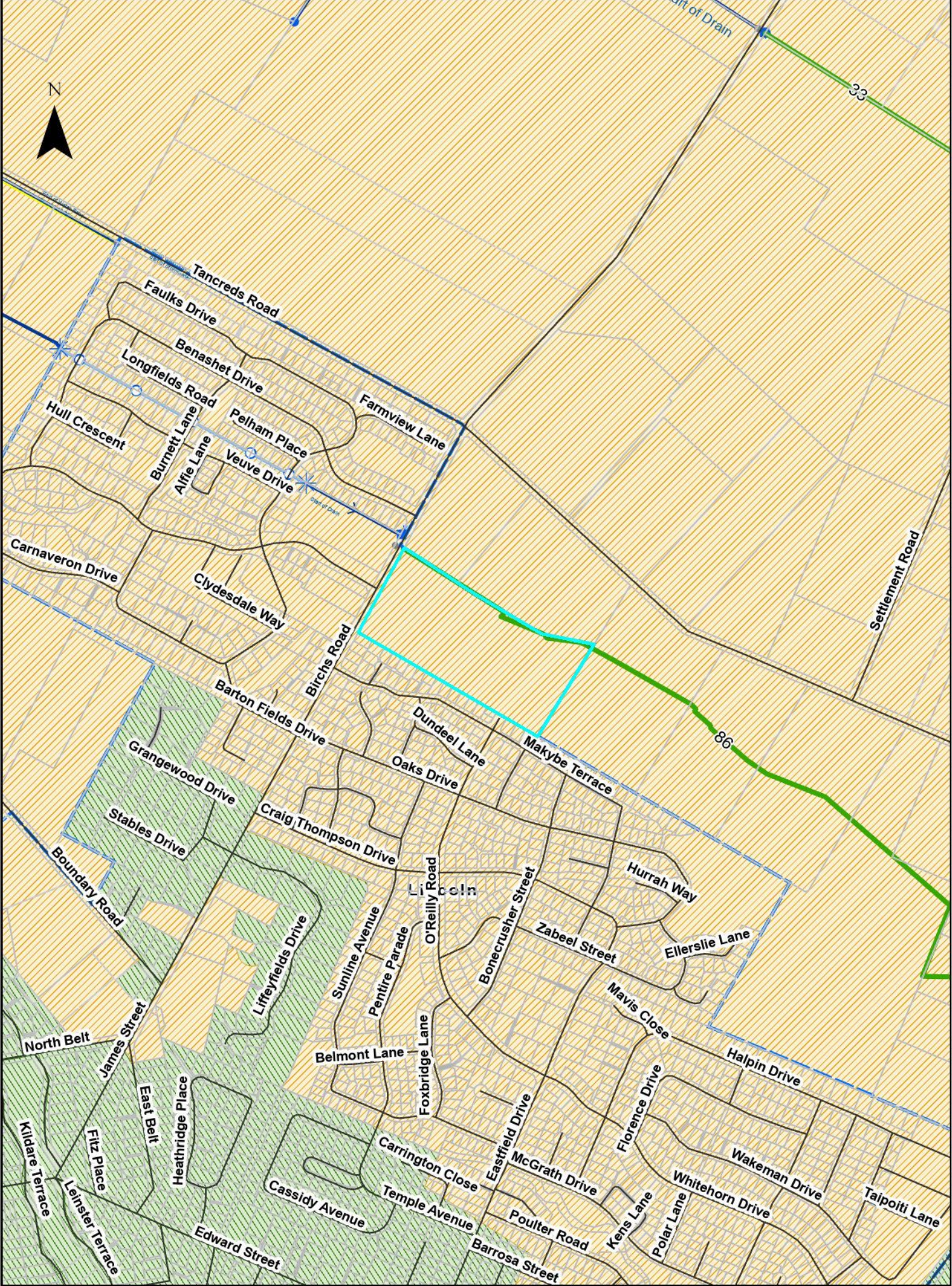


# LIM REPORT - PODP Zone and Precinct





LIM REPORT - Liquefaction, Drains and Water Races





## RESOURCE CONSENT INFORMATION

This document is one of three pages titled “Resource Consent Information” which should be read together.

- Because of the large number of resource consents only consents which fall within the red buffer as identified on the map have been included with this report.
- If further information is required please contact the Council’s Planning Department – Phone Direct 03 3472 868.
- Every effort is made by the Council to identify resource consent in proximity to the property subject to this LIM application. However, it is suggested that a site inspection be undertaken by prospective purchasers to identify any land uses of interest. These may include uses which have existing use rights or other uses which are permitted under the Council’s District Plan.

### Resource Consent Status Codes:

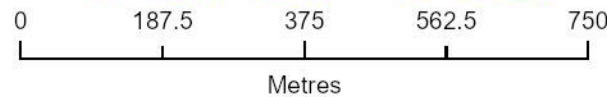
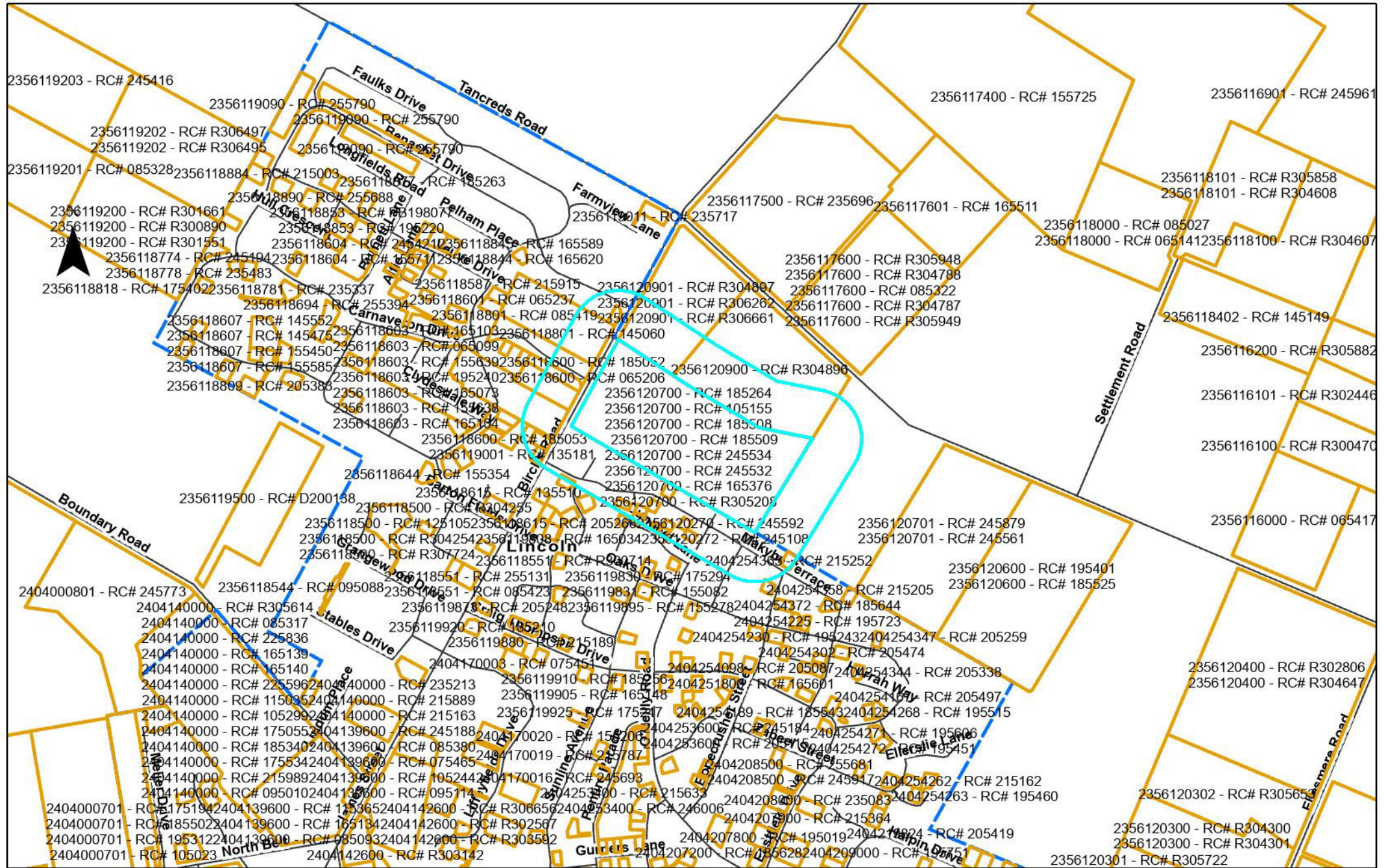
|       |                              |
|-------|------------------------------|
| GHP   | Granted by Hearing           |
| GEC   | Granted by Environment Court |
| GDEL  | Granted by Delegation        |
| GCOM  | Granted by Commissioner      |
| DCOM  | Declined by Commissioner     |
| DHP   | Declined by Hearing          |
| WD    | Withdrawn application        |
| AP    | Approved                     |
| DC    | Declined                     |
| Blank | No decision issued           |
| DN    | Decision Notified            |

|      |                                                |
|------|------------------------------------------------|
| ADN  | Appeal Decision Notified                       |
| AE   | Appeal expiry                                  |
| AEC  | Appeal Heard by Environment                    |
| AN   | Abatement Notice                               |
| AR   | Appeal received                                |
| ARI  | Application returned incomplete                |
| AWD  | Appeal withdrawn                               |
| CC   | Cancelled                                      |
| CCI  | Certificate Compliance Issued                  |
| D37  | Deferred under s.37                            |
| D37E | s.37 deferral ends                             |
| D91  | Deferred under s.91                            |
| D91E | s.91 deferral ends                             |
| ECDN | Environment Court Decision notified            |
| FI   | Further Information                            |
| FICR | Further Information request - no clock restart |
| FR   | Formally received                              |
| HD   | Hearing Date                                   |
| HH   | Hearing held                                   |
| INV  | Invoiced                                       |
| IR   | Information received                           |
| LAPS | Lapsed                                         |
| LD   | Lodged                                         |
| LN   | Limited Notified                               |
| LS   | Lapsed                                         |
| ODN  | Objection decision notified                    |
| OH   | On Hold                                        |
| OR   | Objection received                             |



|      |                                      |
|------|--------------------------------------|
| PA   | Pre- application                     |
| PN   | Publically notified                  |
| PS   | Process suspended                    |
| RAD  | Recommendation adopted by Council    |
| RRA  | Recommendation to required authority |
| S223 | Section 223                          |
| S224 | Section 224                          |
| SC   | submissions closed                   |
| WAR  | Written Approval Requested           |
| WARE | Written Approvals Received           |

2356120700



Date: 1/10/2025  
 Cadastral Information derived from Land Information  
 New Zealand's Digital Cadastral Database (DCDB)  
 CROWN COPYRIGHT RESERVED  
 Approved for internal reproduction by Selwyn District Council  
 Digital Licence No.133562-01  
 Data Projection: NZGD2000 New Zealand Transverse

| Assessment_ID | RC Number | Proposal                                                                                      | Decision Date |
|---------------|-----------|-----------------------------------------------------------------------------------------------|---------------|
| 2356120259    | 235801    | To erect a residential unit exceeding the permitted height in relation to boundary.           |               |
| 2356120263    | 245338    | To construct a vehicle crossing that infringes on the required intersection setback           | 2024-06-19    |
| 2356120264    | 245314    | To construct a vehicle crossing within the required setback from an intersection              | 2024-07-02    |
| 2356120266    | 245793    | To erect a residential dwelling with attached garage which is in breach of building coverage. |               |
| 2356120270    | 245593    | To construct three residential units with non-compliances relating to the vehicle crossings.  | 2024-11-22    |
| 2356120270    | 255227    | Change of Condition's to add an omitted condition on original consent RC245592 / RC245593     | 2025-04-11    |
| 2356120270    | 245591    | To construct dwellings with non-complying vehicle crossing setback from intersection of       |               |
| 2356120270    | 245592    | To undertake a subdivision to create three residential lots                                   | 2024-11-22    |
| 2356120272    | 245108    | To erect a residential unit with non-complying outlook space requirements.                    | 2024-03-15    |
| 2356120278    | 245478    | Change of Conditions to change condition 2 of RC235250                                        | 2024-09-26    |
| 2356120280    | 245060    | To change condition 2 of RC235250 (Land Use)                                                  | 2024-04-30    |
| 2356118600    | 065206    | TO SUBDIVIDE LOT 3 OF 065099 TO CREATE FIVE LOTS >4HA ZONED INNER PLAINS                      | 2006-06-29    |
| 2356118600    | T300042   | CONDITIONAL USE TO SUBDIVIDE PT RS 2554 INTO TWO LOTS AS SHOWN ON THE ATTACHED PLAN           | 1992-05-04    |



|            |         |                                                                                                                        |            |
|------------|---------|------------------------------------------------------------------------------------------------------------------------|------------|
| 2356118600 | R302863 | SUBDIVISION OF 34 HA ZONED RU A IN PROPOSED PLAN INTO 8 LOTS > 4 HA                                                    |            |
| 2356118600 | R304375 | S/D OF 34 HA IN GREEN BELT RESULTING IN 1 X 4HA WITH EXIST DWG, 1 X 15HA WITH EXIST DWG & SHED IN N/C POSITION & 15 HA | 2000-06-08 |
| 2356118600 | 185052  | To undertake a subdivision to create 21 residential lots. Also see variation 185291                                    | 2018-03-09 |
| 2356118600 | 185053  | To undertake Earthworks. NES. S/D 185052                                                                               | 2018-03-09 |
| 2356118600 | 185291  | VARIATION - To change condition 2 of resource consent RC185052 and add conditions 4 to 6                               | 2018-07-05 |
| 2356118600 | 185565  | VARIATION - To change conditions 2, 12, 13 and 46 of resource consent RC185052                                         | 2018-11-01 |
| 2356118602 | 115317  | TO SUBDIVIDE 4HA INTO 3 LOTS OF 1044m2, 760m2 AND BALANCE LOT OF 3.8196HA. REFER TO 125052 FOR VARIATION               | 2012-02-24 |
| 2356118602 | 125052  | Change of conditions of 115317, to undertake subdivision in two stages                                                 | 2012-03-14 |
| 2356118610 | 155643  | To relocate a dwelling to a site in the Lincoln Living Zone.                                                           | 2015-12-07 |
| 2356118610 | 165655  | Retrospective consent to retain a boundary fence of a non-complying height                                             | 2016-12-12 |
| 2356118610 | 135129  | Subdivide to create three residential lots and a balance lot zoned LZ. Also see 135471                                 | 2013-07-10 |
| 2356118610 | 135471  | Change conditions of RC135129                                                                                          | 2013-09-17 |
| 2356118758 | 235716  | To erect a 2-sided temporary real estate advertising sign on Lot 251 DP 570798                                         | 2024-06-26 |
| 2356118800 | R301623 | TO EXTEND EXISTING DWELLING TO WITHIN 10 M OF SIDE BOUNDARY                                                            | 1995-05-23 |
| 2356118800 | 155182  | To Undertake a 6 Lot Subdivision In Two Stages. See L/U 155257 NES.                                                    | 2015-08-13 |



|            |        |                                                                                                                                                                                                                              |            |
|------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 2356118801 | 085419 | TO ESTABLISH AND OPERATE A CHURCH FACILITY INCLUDING PRE SCHOOL, YOUTH FACILITY, AUDITORIUM, OFFICE BUILDINGS, CAFE & CAR PARKING IN THE INNER PLAINS                                                                        | 2009-07-06 |
| 2356118801 | 145060 | Lot 1. Relocate the old Lincoln Library to the Lincoln Baptist Church site to use as a youth facility. (See 085419)                                                                                                          | 2014-03-26 |
| 2356118802 | 185287 | To subdivide Lot 1 DP 490851 to create a link strip                                                                                                                                                                          | 2018-08-23 |
| 2356118802 | 185288 | To cancel Consent Notice 10168256.4                                                                                                                                                                                          |            |
| 2356119001 | 155242 | Variation to change condition 6 of RC135181a relating to stage 2.                                                                                                                                                            | 2015-05-26 |
| 2356119001 | 135181 | See variation 155242. Subdivision to create 8 residential lots, 1 development lot for an over-55s lifestyle village, roads and reserves to vest. And associated earthworks 135181(B). See 135182 for lifestyle village. NES. | 2013-08-07 |
| 2356119076 | 155257 | Earthworks in association with s/d RC155182. NES.                                                                                                                                                                            | 2015-08-13 |
| 2356119076 | 245126 | To establish a non-compliant vehicle crossing and non-compliant rights of way associated with subdivision consent RC235769                                                                                                   |            |
| 2356119076 | 235769 | To undertake a subdivision to create 17 residential lots                                                                                                                                                                     |            |
| 2356119076 | 185460 | To undertake Earthworks. NES. S/D 185459                                                                                                                                                                                     | 2018-10-04 |
| 2356119812 | 165256 | To erect a dwelling breaching internal boundary setback requirements.                                                                                                                                                        | 2016-06-08 |
| 2356119812 | 165557 | To construct a vehicle crossing with a non-complying width                                                                                                                                                                   | 2016-10-21 |
| 2356120125 | 225845 | To construct two vehicle crossings, a non-complying fence and to construct a dwelling with non-complying internal boundary setbacks.                                                                                         | 2022-12-07 |
| 2356120125 | 245165 | Change of conditions to change condition 1 of RC225845 for site coverage non-compliances.                                                                                                                                    | 2024-03-20 |

|            |         |                                                                                                                                                                                                                 |            |
|------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 2356120700 | 105155  | TO OPERATE A STORAGE FACILITY USING EXISTING BARNs IN THE INNER PLAINS                                                                                                                                          | 2010-07-01 |
| 2356120700 | R305208 | TO ERECT DWG ON 8 HA IN INNER PLAINS                                                                                                                                                                            | 2002-05-03 |
| 2356120700 | 245532  | Subdivision consent RC245532 is sought to undertake a subdivision in a flood management overlay creating 117 residential lots, 8 reserve lots, 8 access lots vesting as roads, 1 utility lot and 1 balance lot. | 2025-06-09 |
| 2356120700 | 245534  | Land use consent RC245534 is sought for land use non-compliances associated with RC245532.                                                                                                                      | 2025-06-09 |
| 2356120700 | 185508  | To undertake a subdivision to create 86 residential lots. L/U185509                                                                                                                                             |            |
| 2356120700 | 185509  | To carryout Earthworks under NES. S/D185508                                                                                                                                                                     |            |
| 2356120700 | 165376  | To erect a second dwelling.                                                                                                                                                                                     | 2016-12-01 |
| 2356120700 | 185264  | To undertake a subdivision to create two residential lots                                                                                                                                                       | 2018-06-13 |
| 2356120900 | R304896 | SUBDIVISION OF 9.9 HA IN GREEN BELT INTO 2 LOTS > 4 HA                                                                                                                                                          | 2001-06-08 |
| 2356120901 | R306661 | TO ESTABLISH AND OPERATE A HORTICULTURAL CENTRE INCLUDING A PRODUCTION FACILITY/WAREHOUSE & ADMIN OFFICE                                                                                                        | 2004-08-24 |
| 2356120901 | R304897 | TO ERECT A DWELLING ON 4 HA LOT CREATED BY R304896                                                                                                                                                              | 2001-06-08 |
| 2356120901 | R306262 | VARIATION TO R304897: EXTENSION OF TIME - LOT 2: TO ERECT A DWELLING ON 4 HA LOT CREATED BY R304896                                                                                                             | 2003-07-22 |
| 2404254365 | 215252  | To construct a vehicle crossing with a non-complying intersection setback                                                                                                                                       | 2021-04-28 |
| 2356120131 | 245810  | To construct two residential units with non-compliant fencing and two vehicle crossings per site (prior to the completion of the subdivision).                                                                  | 2024-12-11 |

|            |        |                                                                                    |            |
|------------|--------|------------------------------------------------------------------------------------|------------|
| 2356120131 | 245906 | To undertake a two-lot subdivision, resulting in one residential unit on each lot. | 2024-12-11 |
| 2404254398 | 215160 | To construct a vehicle crossing in a non-complying position                        | 2021-03-29 |

**Code Compliance Certificate****001172****Section 43(3), Building Act 1991****APPLICANT**POSH OF HOLMWOOD LTD  
54 HOLMWOOD RD  
CHRISTCHURCH  
ATTN, M COOK

Issue date 28/04/00

**Project**

|                   |                                        |
|-------------------|----------------------------------------|
| Description       | New Construction                       |
|                   | Being Stage 1 of an intended 1 Stages  |
|                   | HAY SHED                               |
| Intended Life     | Indefinite, but not less than 50 years |
| Intended Use      | HAY SHED                               |
| Estimated Value   | \$7,800                                |
| Location          | BIRCHES RD, LINCOLN                    |
| Legal Description | LOT 2 DP 33959 BLK I HALSWELL SD       |
| Valuation No.     | 2356120700                             |

This is a final Code Compliance Certificate issued in respect of all the building work under the above building consent.

**Signed for and on behalf of the Council:**

Name:



Date: April 28, 2000



**Code Compliance Certificate****010944****Section 43(3), Building Act 1991****APPLICANT**POSH OF HOLMWOOD LTD  
54 HOLMWOOD ROAD  
CHRISTCHURCH

Issue date 11/09/01

**Project**

|                   |                                                                            |
|-------------------|----------------------------------------------------------------------------|
| Description       | New Construction<br>Being Stage 1 of an intended 1 Stage<br>IMPLEMENT SHED |
| Intended Life     | Indefinite, but not less than 50 years                                     |
| Intended Use      | IMPLEMENT SHED                                                             |
| Estimated Value   | \$12,000                                                                   |
| Location          | BIRCHS ROAD, LINCOLN                                                       |
| Legal Description | LOT 2 DP 33959 BLK I HALSWELL SD                                           |
| Valuation No.     | 2356120700                                                                 |

This is a final Code Compliance Certificate issued in respect of all the building work under the above building consent.

**Signed for and on behalf of the Council:****Name:****Date: September 11, 2001**



CODE COMPLIANCE CERTIFICATE NO: 02/482  
Section 56 (3), Building Act 1991

Issued by: KELVIN NEWMAN  
currently approved and registered as a Building Certifier-Rego No: 11

To: Selwyn District Council

Building Consent No: 021364

| PROJECT                                                       | PROJECT LOCATION      |
|---------------------------------------------------------------|-----------------------|
| New or Relocated Building <input checked="" type="checkbox"/> | Street Address:       |
| Alteration or Addition <input type="checkbox"/>               | Birches Road, Lincoln |
| Log Fire <input checked="" type="checkbox"/>                  | Legal Description:    |
| Intended use (s):                                             | Lot No: 2 Dp: 33959   |
| Domestic Living <input checked="" type="checkbox"/>           |                       |
| Out Buildings <input type="checkbox"/>                        |                       |
| Intended life:                                                |                       |
| Indefinite but not less than                                  |                       |
| 50 years. <input checked="" type="checkbox"/>                 |                       |
| Specified as ..... years.                                     |                       |
| Demolition <input type="checkbox"/>                           |                       |
| Being stage one of intended one stages.                       |                       |

This is:

- ☒ A Final Code Compliance Certificate issued in respect of all of the building work under the above consent.
- ☐ An Interim Code Compliance Certificate in respect of part only of the building work under the above building consent as specified in the attached page (s) headed "Scope and Conditions of Code Compliance Certificate No: 02/482" (being this certificate).

Signed by or on behalf of the Building Certifier:

Name: Kelvin Newman  
Position: Certifier

*K Newman*  
Date: 19/12/03

## Form 7

### Code compliance certificate

*Section 95, Building Act 2004*

#### The building

|                                                      |                            |
|------------------------------------------------------|----------------------------|
| Street address of building:                          | 555 Birchs Road, Lincoln   |
| Legal description of land where building is located: | LOT 2 DP 33959             |
| Building name:                                       | N/A                        |
| Location of building within site/block number:       | 555 Birchs Road<br>Lincoln |
| Level/unit number:                                   | N/A                        |
| Current, lawfully established, use:                  | SH (Sleeping Single Home)  |
| Number of occupants:                                 | N/A                        |
| Year first constructed:                              | 2016                       |

#### The owner

|                                                                                        |                                              |
|----------------------------------------------------------------------------------------|----------------------------------------------|
| Name of owner:                                                                         | J M Cooke & S C Barker                       |
| Contact person:                                                                        | Charles & Penny Butler                       |
| Mailing address:                                                                       | 102 Memorial Avenue, Fendalton, Christchurch |
| Street address/registered office:                                                      | N/A                                          |
| Phone number:                                                                          | Landline: 033256268 Mobile: 0211820116       |
| Daytime:                                                                               | Landline: 033256268 Mobile: 0211820116       |
| After hours:                                                                           | Landline: 033256268 Mobile: 0211820116       |
| Facsimile number:                                                                      | N/A                                          |
| Email address:                                                                         | posh.of.holmwood@paradise.net.nz             |
| First point of contact for communications with the council/building consent authority: |                                              |

#### Building work

|                          |                                                                     |
|--------------------------|---------------------------------------------------------------------|
| Building consent number: | 161118                                                              |
| Description:             | 6 Bedroom Domestic Dwelling with Attached Garage<br>& Swimming Pool |
| Issued by:               | Selwyn District Council                                             |

#### Code compliance

The building consent authority named below is satisfied, on reasonable grounds, that -

- the building work complies with the building consent.

Signature: Ian Buckle

Position: Building Control Officer

On behalf of: Selwyn District Council  
Date: 24 October 2018



All Plumbing and Drainage to comply with New Zealand Building Code and Other Approved Documents Sections G10, G12 and G13.

#### LEGEND

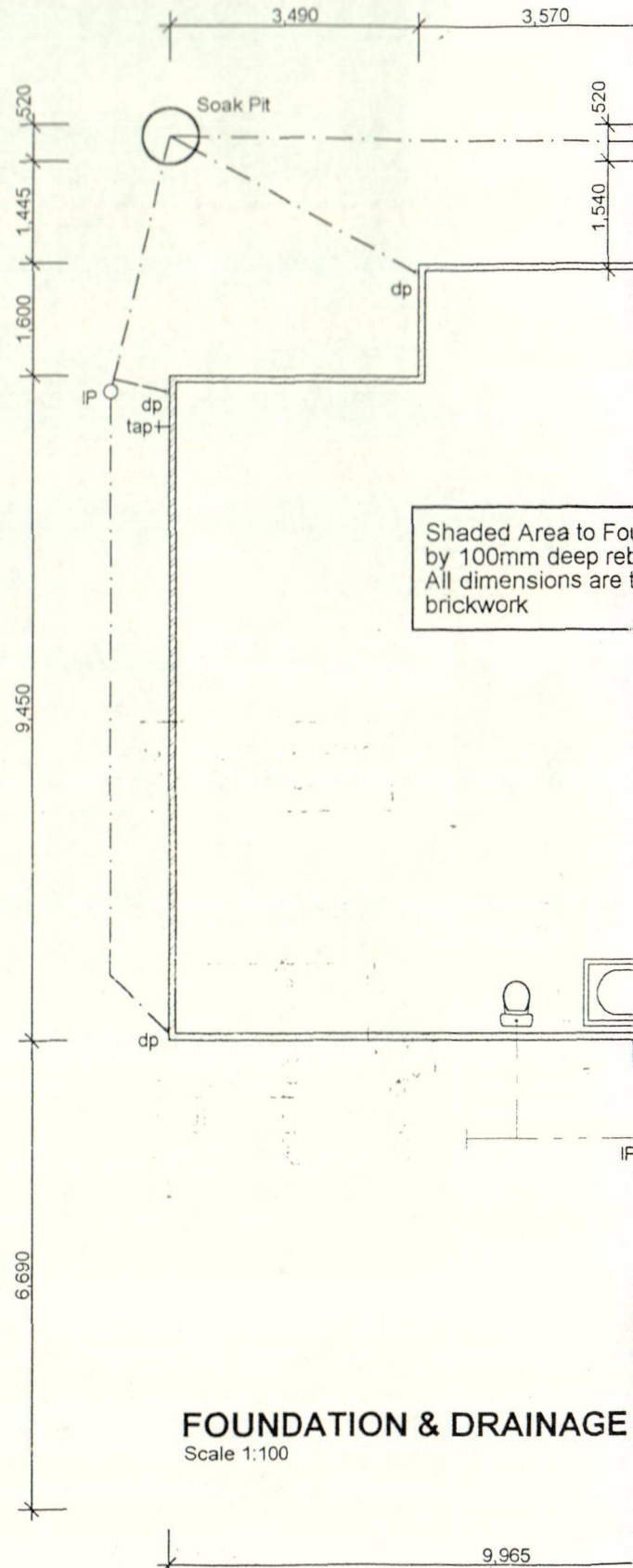
|                              |       |
|------------------------------|-------|
| Foulsewer Drain (100mm dia)  | ---   |
| Stormwater drain (100mm dia) | - - - |
| Downpipe                     | o dp  |
| Dropper                      | o dr  |
| Gully trap                   | □ GT  |
| Discharge Stack              | o ds  |
| Rodding Point                | ○ RP  |
| Inspection Point             | ○ IP  |
| Exterior Tap                 | + tap |
| Meter Board                  | ≡     |
| Switch Board                 | ≡≡    |

NOTE: All pipes under slab to be sleeved

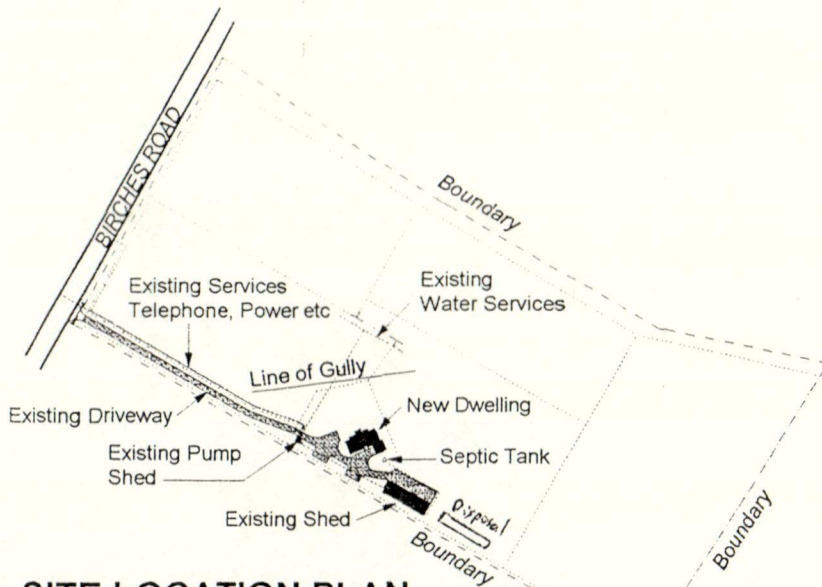
NOTE: ALL fixtures more than 3.5m from gully traps shall be fitted with air admittance valves

|                   |                     |
|-------------------|---------------------|
| Ground Floor Area | 275.0m <sup>2</sup> |
| First Floor Area  | 63.3m <sup>2</sup>  |
| Deck Area         | 8.4m <sup>2</sup>   |
| TOTAL Floor Area  | 346.7m <sup>2</sup> |

|                                  |                     |
|----------------------------------|---------------------|
| Ground Floor Area over Brickwork | + 8.0m <sup>2</sup> |
|----------------------------------|---------------------|



**FOUNDATION & DRAINAGE**  
Scale 1:100



**SITE LOCATION PLAN**

Scale 1:5000

Lot 2 D.P.33959 B.C.No. 021364

Clive Cooke

BC021364.  
**FILE COPY**

#### NOTE

1. All work shall comply with NZS 3604:1999
2. All windows and doors to comply with NZS 4211:1985
3. Glazing to comply with NZS 4223:1985 & Pt 3 1993
4. Contractor must verify all dimensions on site prior to commencing any work
5. The copyright of this drawing is vested with Peter Ray Homes Ltd and cannot legally be used, copied or in any form reproduced without written authority

| Rev No. | Date | Amendment |
|---------|------|-----------|
|         |      |           |
|         |      |           |
|         |      |           |
|         |      |           |
|         |      |           |
|         |      |           |
|         |      |           |

**Peter Ray Homes Limited**

Ph. (03) 348 1994 / Fax. (03) 348 1044



All Plumbing and Drainage to comply with New Zealand Building Code and Other Approved Documents Sections G10, G12 and G13.

#### LEGEND

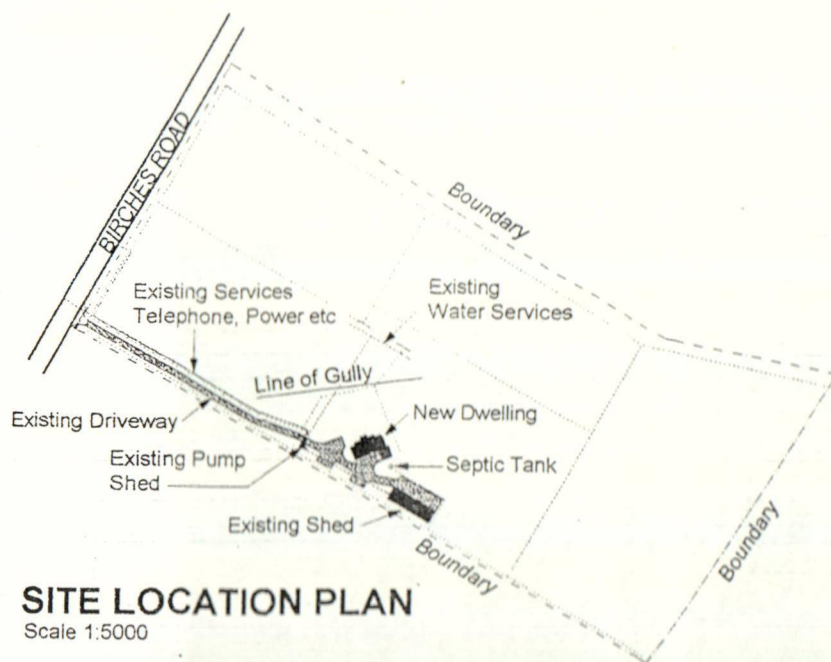
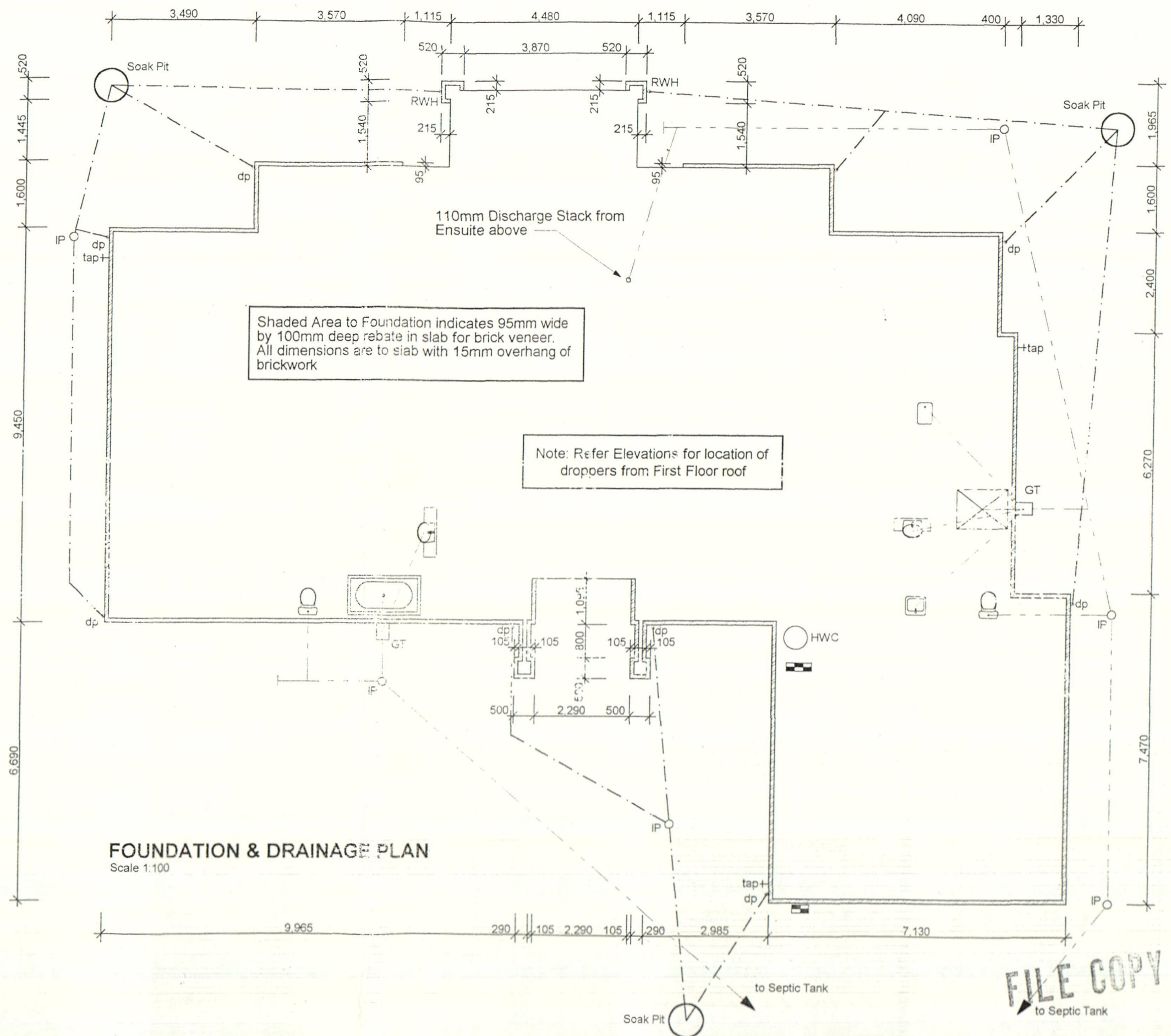
|                              |       |
|------------------------------|-------|
| Foulsewer Drain (100mm dia)  | ---   |
| Stormwater drain (100mm dia) | ---   |
| Downpipe                     | o dp  |
| Dropper                      | o dr  |
| Gully trap                   | □ GT  |
| Discharge Stack              | o ds  |
| Rodding Point                | ○ RP  |
| Inspection Point             | ○ IP  |
| Exterior Tap                 | + tap |
| Meter Board                  | ▢     |
| Switch Board                 | ▢     |

NOTE: All pipes under slab to be sleeved

NOTE: ALL fixtures more than 3.5m from gully traps shall be fitted with air admittance valves

Ground Floor Area 275.0m<sup>2</sup>  
First Floor Area 63.3m<sup>2</sup>  
Deck Area 8.4m<sup>2</sup>  
TOTAL Floor Area 346.7m<sup>2</sup>

Ground Floor Area over Brickwork + 8.0m<sup>2</sup>



**Peter Ray Homes Limited**

Ph. (03) 348 1994 / Fax. (03) 348 1044

#### NOTE

- All work shall comply with NZS 3604:1999
- All windows and doors to comply with NZS 4211:1985
- Glazing to comply with NZS 4223:1985 & Pt 3 1993
- Contractor must verify all dimensions on site prior to commencing any work
- The copyright of this drawing is vested with Peter Ray Homes Ltd and cannot legally be used, copied or in any form reproduced without written authority

| Rev No. | Date | Amendment |
|---------|------|-----------|
|         |      |           |
|         |      |           |
|         |      |           |
|         |      |           |

Drawn  
J. Stadnyk  
Date  
Sept 02  
Scale  
1:5000  
1:100

Job Name & Location

**COOKE RESIDENCE**  
Birches Road, Lincoln

Sheet Title

**Site & Location Plan**  
**Foundation & Drainage Plan**

Sheet No.

**1 of 9**

Revision





ЗББ.

2356/207/00





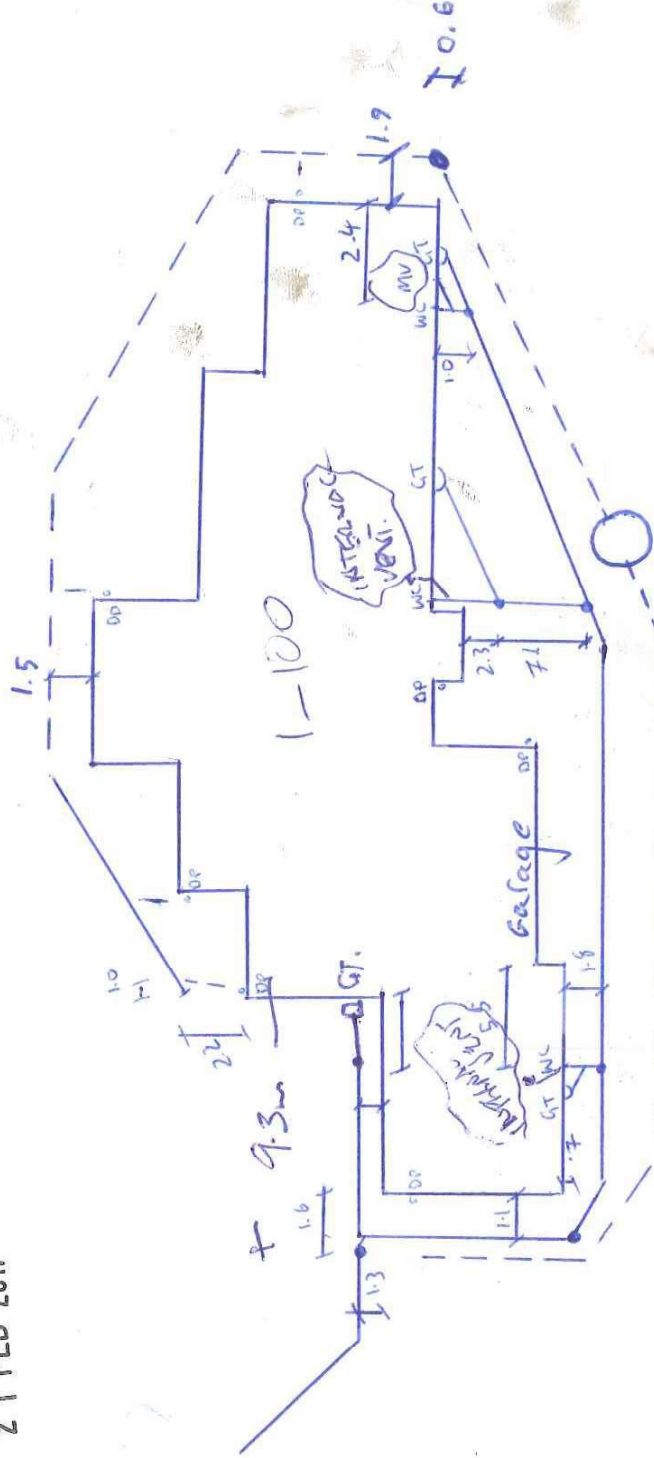
# AS BUILT - DYNAMIC DRAINAGE & EXCAVATION LTD

GRANT WOOSTER REGO # 19643 BCN # 161118 DATE: 16-02-17  
ADDRESS: 555 Birch's Road, Lincoln



BC 161118

21 FEB 2017



## KEY

SEWER  
STORMWATER

INSPECTION

RODDING POINTS

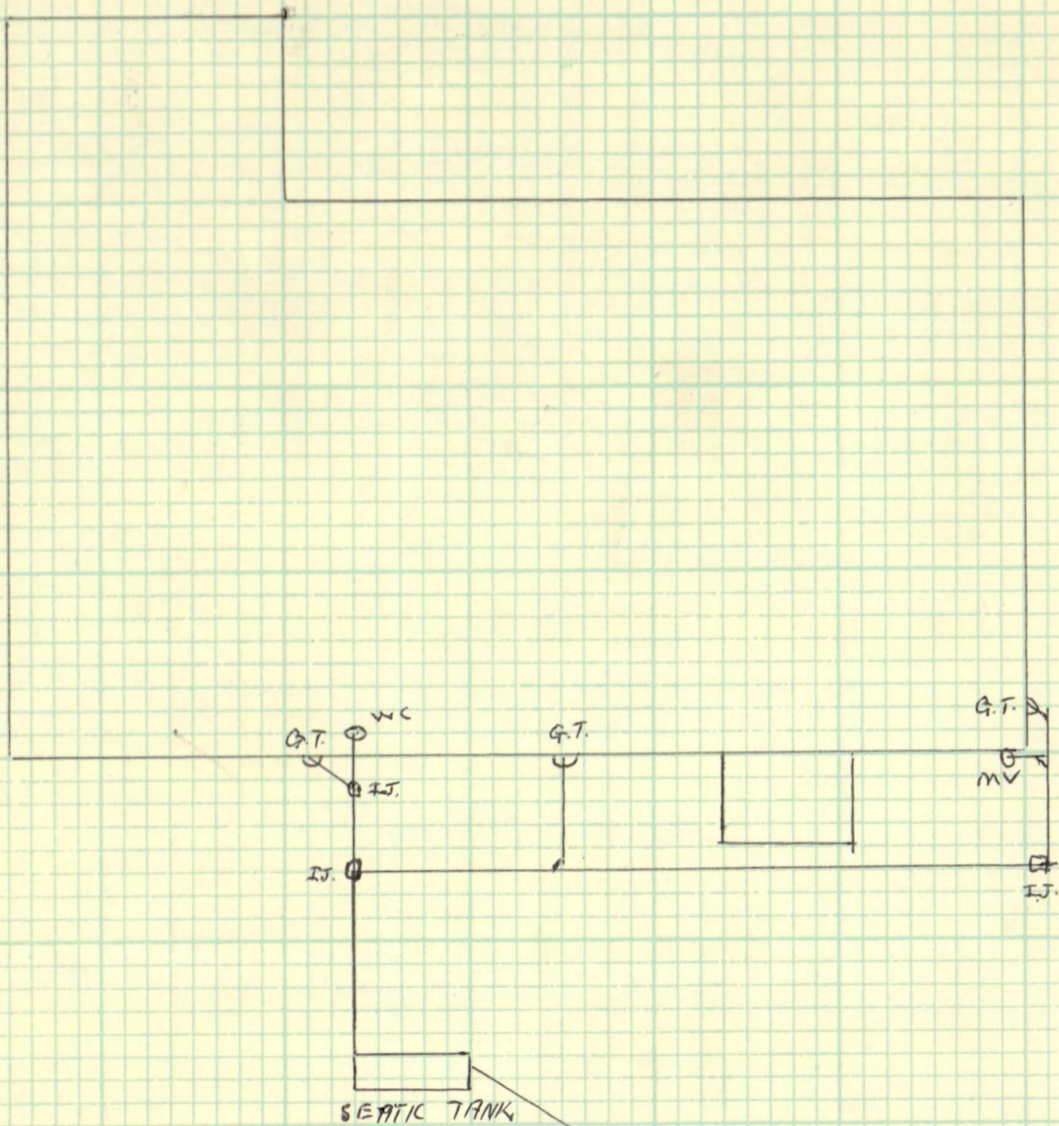
SEWER GRADE 1: 100 SEWER DEPTH AT BOUNDARY  
STORMWATER GRADE 1: 90 STORMWATER DEPTH AT BOUNDARY

\*\*NOT TO SCALE\*\*

OWNER - F. R. Green

BUILDER - J. Young.

Warrantor - G. R. Hyslop.



Seepage not of the best  
Hole was filled in on approx 2/7/55  
There is long fault line with  
mud & on the hole found on



# INSPECTION NOTICE

Inspections are to be booked by the owner or builder. A Code Compliance Certificate can only be issued following a satisfactory final inspection.

Name: POST OF HOLMWOOD Consent No: 020212  
 Site Address/Rapid No: BIRCHES RD Officer: W GRIGGS  
 Name: \_\_\_\_\_

Type of building work: PUMP SHED

On 29 / 5 / 02 at 1.15 am/pm this site was inspected pursuant to the Building Act 1991 [Section 77(1)] and the local government Act 1974. [Section 710]. The purpose of the inspection was:-

|   |                                                        |   |                       |   |                                         |
|---|--------------------------------------------------------|---|-----------------------|---|-----------------------------------------|
| a | Siting                                                 | h | Bond Beam             | o | Other                                   |
| b | Foundation                                             | i | Blockfill             | p | Resource Consent                        |
| c | Slab                                                   | j | Heating unit          | q | Complaint/investigation                 |
| d | Preline/Bracing                                        | k | Sanitary drainage     | r | Compliance Schedule                     |
| e | Plumbing                                               | l | Stormwater drainage   | s | WOF/ c/s audit                          |
| f | Post line bracing                                      | m | Pile/pole holes       | t | CCC full <input type="checkbox"/> Yes   |
| g | <input checked="" type="checkbox"/> Half height veneer | n | Swimming pool/fencing | u | CCC partial <input type="checkbox"/> No |

BUILDING WORK MAY PROCEED ☒ MAY NOT PROCEED ☐ REINSPECTION YES ☐ NO ☒

## INSPECTION NOTES:

Brick veneer to pump shed - not lined.

haven't worried about closing wall/roof cavity

metal ties 40mm cavity

Owner/Builder/Contractor confirms floor height is as recommended by Environment Canterbury ☐

## INSTRUCTIONS

All work inspected is in accordance with the Building Consent ☒

Satisfactory: Work may proceed when minor items above have been attended to ☐

Some work is not satisfactory or is incomplete, as detailed above, and rectification is required. ☐

A formal notice to rectify will be issued ☐

Notice to: Contractor ☐ Owner ☐ Agent ☐ Occupier ☐ Signed: [Signature]  
 By: Telephone ☐ Fax ☐ Posting ☐ Left on Site ☐

# **REPORT**

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**Selwyn District Council**

**Desk-based Ground Contamination  
Assessment  
Plan Change 7 Area**

**Report prepared for:**

**Selwyn District Council**

**Report prepared by:**

**Tonkin & Taylor Ltd**

**Distribution:**

**Selwyn District Council**

**2 copies**

**Tonkin & Taylor Ltd (FILE)**

**1 copy**

**January 2011**

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# Table of contents

|          |                                                                          |           |
|----------|--------------------------------------------------------------------------|-----------|
| <b>1</b> | <b>Introduction</b>                                                      | <b>1</b>  |
| 1.1      | Objectives and scope of work                                             | 1         |
| <b>2</b> | <b>Site 1 – Rolleston</b>                                                | <b>2</b>  |
| 2.1      | Site Description                                                         | 2         |
| 2.1.1    | Site location and current land use                                       | 2         |
| 2.1.2    | Site geology and hydrogeology                                            | 2         |
| 2.2      | Site History                                                             | 2         |
| 2.2.1    | Aerial Photographs                                                       | 2         |
| 2.2.2    | Certificates of Title                                                    | 4         |
| 2.2.3    | Previous investigations                                                  | 4         |
| 2.2.4    | SDC property files                                                       | 5         |
| 2.2.5    | ECan listing                                                             | 5         |
| 2.2.6    | Site inspection                                                          | 5         |
| 2.3      | Summary of site history and potential for ground contamination           | 6         |
| <b>3</b> | <b>Site 2 – Lincoln</b>                                                  | <b>7</b>  |
| 3.1      | Site Description                                                         | 7         |
| 3.1.1    | Site location and land use                                               | 7         |
| 3.1.2    | Site geology and hydrogeology                                            | 7         |
| 3.2      | Site History                                                             | 8         |
| 3.2.1    | Aerial Photographs                                                       | 8         |
| 3.2.2    | Certificates of Title                                                    | 9         |
| 3.2.3    | Previous investigations                                                  | 10        |
| 3.2.4    | SDC property files                                                       | 10        |
| 3.2.5    | ECan listing                                                             | 11        |
| 3.2.6    | Site walkover inspection                                                 | 11        |
| 3.3      | Summary of historical information and potential for ground contamination | 12        |
| <b>4</b> | <b>Conclusions</b>                                                       | <b>13</b> |
| <b>5</b> | <b>Applicability</b>                                                     | <b>14</b> |

|                   |                                                 |
|-------------------|-------------------------------------------------|
| <b>Figure 1:</b>  | <b>Site 1 location plan</b>                     |
| <b>Figure 2a:</b> | <b>Site 1 features – ODP Areas 2, 3 &amp; 4</b> |
| <b>Figure 2b:</b> | <b>Site 1 features – ODP Areas 1, 5 &amp; 6</b> |
| <b>Figure 3:</b>  | <b>Site 2 location plan</b>                     |
| <b>Figure 4a:</b> | <b>Site 2 features – ODP Areas 1, 2 &amp; 5</b> |
| <b>Figure 4b:</b> | <b>Site 2 features – ODP Areas 3, 4 &amp; 6</b> |

|                    |                                               |
|--------------------|-----------------------------------------------|
| <b>Appendix A:</b> | <b>List of land parcels in PC7</b>            |
| <b>Appendix B:</b> | <b>Selected certificates of title: Site 1</b> |
| <b>Appendix C:</b> | <b>ECan LLUR listing Site 1</b>               |
| <b>Appendix D:</b> | <b>Selected certificates of title: Site 2</b> |
| <b>Appendix E:</b> | <b>ECan LLUR listing Site 2</b>               |

# **1 Introduction**

Tonkin and Taylor Ltd (T&T) have been engaged by the Selwyn District Council (SDC) to undertake a desk-based ground contamination investigation within the Plan Change 7 area. The Plan Change 7 area is located around the townships of Rolleston and Lincoln, Canterbury, hereafter referred to as 'Site 1' and 'Site 2' respectively.

The aim of the investigation was to establish the potential for historical activities to have resulted in ground contamination within the land proposed for rezoning, and how this may affect the zone change.

This work has been undertaken in accordance with our proposal of 10 November 2010.

## **1.1 Objectives and scope of work**

We understand that SDC proposes to rezone land around Lincoln and Rolleston that is currently zoned as 'Living Z' or 'Deferred Living Z'. This rezoning is proposed in order to allow these areas to be used for standard residential activities. The area proposed for rezoning comprises 58 current land parcels.

We also understand that as part of the plan change process, SDC are required to demonstrate that ground contamination matters will not preclude the proposed use. This study was undertaken at the request of SDC in order to assess the potential for historical activities on the sites to have resulted in ground contamination, with the following scope of works:

- Identification all of the properties within the PC7 area (information provided to us by SDC)
- An Environment Canterbury (ECan) Listed Landuse Register (LLUR) search
- Undertaking of a site walkover inspection
- Review of historical aerial photographs
- Review of the SDC property files
- Review of selected historic certificates of title where required
- Preparation of this report.

Findings are reported for 'Site 1' (Rolleston) and 'Site 2' (Lincoln) in sections 2 and 3 respectively.

## 2 Site 1 – Rolleston

### 2.1 Site Description

Site 1 comprises a total of 6 Outline Development Plan (ODP) areas around the township of Rolleston, as shown on Figures 1, 2a, and 2b. Site 1 includes 30 current land parcels (list of parcels as provided by SDC in Appendix A) covering a total of approximately 242 hectares.

#### 2.1.1 Site location and current land use

ODP area 1 contains 18 of the existing parcels, and is located southwest of Rolleston, between Main Road South (State Highway 1), Dunns Crossing Road, Burnham School Road and Brookside Road. These land parcels cover an area of approximately 63 hectares and are predominantly agricultural land.

ODP area 2 is a small (4.8 hectares), triangular-shaped area of agricultural land consisting of one existing parcel of land on Norman Kirk Drive, bound by Dick Roberts Place and Rolleston Drive on its southwest and east sides respectively.

ODP areas 3 and 4 are areas of approximately 50 and 7 hectares respectively, to the east of Rolleston township. Both areas are predominantly agricultural land with some residential buildings and together comprise 5 existing land parcels.

ODP areas 5 and 6 together contain 6 existing parcels of land. These are agricultural areas with some residential buildings and are located south of Rolleston, along Goulds Road. They have a combined area of approximately 117 hectares.

#### 2.1.2 Site geology and hydrogeology

The underlying geology is described by Forsyth et al.<sup>1</sup> as grey alluvium of variable thickness, beneath plains or low level terraces.

Based on information in ECan's database, soils beneath Site 1 are stony, shallow silt loam (ODP areas 1, 5 and 6), shallow, sandy loam (ODP area 2) and deep, fine sandy loam (ODP 3 and 4).

ECan's well database shows a total of 22 wells on Site 1. The depth of these wells varies from 16m to 84m, used for irrigation, stock supply and domestic supply. The wells are privately owned, except for M36/0028 in ODP area 1 which is used by Land and Survey for groundwater monitoring. Groundwater levels in this well range between 7.9 and 16.3m below ground level. Based on local topography and location of surface water features, general groundwater flow direction is expected to be towards the southeast.

## 2.2 Site History

### 2.2.1 Aerial Photographs

Six sets of aerial photographs from New Zealand Aerial Mapping (1942, 1961, 1973, 1984 and 1994) and Terraview (2010) were reviewed to gain historical information for Site 1. The results are summarised in Table 1. Key features are shown on Figures 2a and b.

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<sup>1</sup> Forsyth, P.J., Barrell, D.J.A. and Jongens, R., 2008, Geology of the Christchurch Area, IGNS Map 16, 1:250,000



**Table 1: Summary of historical aerial photographs**

| Year | Run, Scale           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1942 | SN 224,<br>1:16,000  | <p>ODP1: Agricultural land, including cropping. Stands of trees are present along part of south-western and north-eastern boundaries. There is a small area of disturbed ground near north-eastern boundary.</p> <p>ODP2: Cropping.</p> <p>ODP3: Agricultural land, including cropping. A small shed is present in the centre of the area, and a paddock, residential dwelling and associated garden are present on the southern boundary. A small area of disturbed ground is visible north of the dwelling.</p> <p>ODP4: Cropping.</p> <p>ODP5: Agricultural land, including cropping and rough, undeveloped ground. A dwelling and two outbuildings surrounded by trees are present towards the eastern corner.</p> <p>ODP6: Agricultural land, including cropping. A small paddock enclosed by trees is present on north-western boundary.</p> |
| 1961 | SN 1408,<br>1:17,000 | <p>ODP1: There is a cluster of small buildings against southern boundary.</p> <p>ODP2: No significant change.</p> <p>ODP3: The small shed has been removed. The disturbed ground near the dwelling is no longer visible.</p> <p>ODP4: No significant change.</p> <p>ODP5: Rough ground is no longer present. A small fenced/hedge-lined yard is present north of the buildings and an area of disturbed ground extends approximately 200m to the northwest.</p> <p>ODP6: Rough ground is visible on the southern part of the area. A cluster of small buildings and a fenced paddock are present in the northern corner.</p>                                                                                                                                                                                                                       |
| 1974 | SN 2713,<br>1:25,000 | <p>ODP1: A residential building is present in the eastern corner.</p> <p>ODP2: No significant change.</p> <p>ODP3: No significant change.</p> <p>ODP4: No significant change.</p> <p>ODP5: The area of disturbed ground extending northwest from the yard has been removed.</p> <p>ODP6: Rough ground is no longer present. A shed is visible at the southern corner of the tree-enclosed paddock.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1984 | SN 8389,<br>1:25,000 | <p>ODP1: No significant change.</p> <p>ODP2: No significant change.</p> <p>ODP3: No significant change.</p> <p>ODP4: No significant change.</p> <p>ODP5: A track crosses the lot from the buildings to the northwest corner. A new building is present in centre of site.</p> <p>ODP6: A second shed is visible on the south-eastern edge of the tree-enclosed paddock.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 1994 | SN 9381,<br>1:50,000 | <p>ODP1: No significant change.</p> <p>ODP2: No significant change.</p> <p>ODP3: A shed is present to the east of the dwelling.</p> <p>ODP4: No significant change.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| Year | Run, Scale      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |                 | ODP5: Two sheds are present close to the building. The area containing the building and sheds is now surrounded by trees.<br>ODP6: No significant change.                                                                                                                                                                                                                                                                                                                                                                                               |
| 2010 | Terraviva image | ODP1: No significant change.<br>ODP2: No significant change.<br>ODP3: A new dwelling and two outbuildings are present on the southern boundary adjacent to the existing dwelling. Three sheds are present to the east of the dwellings.<br>ODP4: No significant change.<br>ODP5: The sheds in centre of the area have been removed and a large dwelling and garden area are now present.<br>ODP6: One of the sheds on the edge of the paddock has been removed. There is a small area of disturbed ground in centre of site. Grazing stock are visible. |

### 2.2.2 Certificates of Title

To ascertain how long the identified sheep dip (see Section 2.2.6) within ODP area 6 may have been operating, a search of the available historical certificates of title (CTs) was undertaken for this parcel. Appendix B contains the certificates of title.

This revealed that RS 12514, RS 15710 and RS9522 (which form part of ODP areas 5 and 6) are in one title, and the original titles were created in 1917. The original and subsequent titles suggest that farming of some sort has been undertaken on this site since this date. As a consequence, the sheep dip may have been operating since at least 1870 and as such, a variety of agrochemicals may have been used in the dip and elsewhere on the property.

Certificates of title for the other parcels were not searched as the other information sources provided sufficient information.

### 2.2.3 Previous investigations

In April 2010 Tonkin & Taylor Ltd carried out a desk study and limited soil investigation of ODP area 5<sup>2</sup>. Soil samples were collected to assess if any contaminants existed in the site's soils. The conclusions of this study were:

- A dwelling existed on the site since at least 1942. A vegetable garden and underground storage tank (UST) were associated with the dwelling.
- The UST was removed in 2005 and is reportedly being used as an AST on the property to the south of Dynes Road (within ODP area 6 – formerly same owner). No soil sampling was undertaken following removal of the tank, but the former occupant stated that there was no evidence that the tank leaked.
- The property was used for cropping and sheep grazing, but no sheep dip existed on site. Sheep were either dipped on a mobile dip (onsite), or the dip on the property to the south of Dynes Road was used.

<sup>2</sup> 54 Dynes Road, Rolleston. Desk based ground contamination investigation with limited confirmatory sampling. April 2010. Ref 51664.

### 2.2.4 SDC property files

Property files relating to Site 1 held by SDC were reviewed on 26 November 2010. Relevant information is summarised in Table 2.

**Table 2: Summary of SDC property files**

| ODP Area | Summary of file information                                                                                                                                                                                                                                                                                                                                 |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1        | No relevant information.                                                                                                                                                                                                                                                                                                                                    |
| 2        | No property file located.                                                                                                                                                                                                                                                                                                                                   |
| 3        | 1990: Relocation of dwelling (Lot 2 DP 65668).<br>1994: Construction of hay barn (Lot 1 DP 65668).<br>1995: Construction of hay barn (Lot 1 DP 68746).<br>1996: Construction of dwelling and implement shed (Lot 1 DP 68746).<br>1997: Construction of farm building (Lot 1 DP 65668).<br>1998: Construction of dwelling with septic tank (Lot 1 DP 65668). |
| 4        | No relevant information.                                                                                                                                                                                                                                                                                                                                    |
| 5        | 1980: Construction of farmhouse (RS 9522, 19792, 23251).<br>1998: Construction of farm storage shed (RS 9522, 19792, 23251).<br>2000: Alterations to dwelling including septic tank (RS 9522, 19792, 23251).                                                                                                                                                |
| 6        | No relevant information.                                                                                                                                                                                                                                                                                                                                    |

### 2.2.5 ECan listing

A search of ECan's Listed Land Use Register (LLUR) was requested. The register contains information about contaminated and potentially contaminated sites. A contaminated sites team member confirmed in a letter dated 7 December 2010 that RS 9522, in ODP area 5, appears on the LLUR as an "Unverified HAIL" site.

ECan records summarise the T&T 2010 report, noting that an underground fuel storage tank was removed in 2005, and was continued to be used as an aboveground fuel tank on a neighbouring property. Sampling of soil around the fill point of the former underground tank site in 2010 showed acceptable total petroleum hydrocarbons (TPH) and BTEX concentrations. A copy of the LLUR listing for Site 1 is attached as Appendix C.

### 2.2.6 Site inspection

A site visit was made by a Tonkin & Taylor Environmental Engineer on 16 December 2010. Given the size of the subject area, it was not possible to undertake a detailed walkover the land parcels, however all were viewed from the road to confirm the findings of the historical review.

For Site 1, the following were the significant findings of the site inspection:

- Farm sheds, above ground storage tanks (ASTs), sheep yards and possibly a sheep dip were observed on the northern edge of RS12514 and Lot 1 DP 8833, adjacent to Dynes Road (within ODP area 6).
- An AST was observed adjacent to the farmhouse located within ODP area 6 adjacent to East Maddisons Road (Lot 1 DP 327430).
- Remnants of the foundations of a domestic dwelling were present on Lot 1 DP11863 on the corner of Burnham School Road and Brookside Road.

- Cropping and grain storage was being undertaken within ODP area 3.
- The remainder of the sites appeared to be utilised for dry stock grazing.
- A number of farm buildings and implement sheds were observed throughout the ODP areas.

## 2.3 Summary of site history and potential for ground contamination

The walkover inspection as well as the historical titles, aerial photographs and SDC file showed that the majority of Site 1 was used for dry stock grazing and cropping since at least the earliest available records (late 1800s). These activities may have included application of agrochemicals to control insects, weeds and fungal diseases, as well as the storage and mixing of these chemicals and fuels. A sheep dip may have operated on at least one property.

Activities associated with these land uses do have potential to cause contamination of the ground, albeit at relatively low levels across the broad acre areas of the sites. Higher levels of contaminants may be found in localised areas around farm buildings, sheep dips, waste holes and wherever agrochemicals may have been stored or mixed.

A summary of potential land uses at Site 1 which may have resulted in ground contamination are summarised in Table 3.

**Table 3: Summary of potential sources of contamination for site 1**

| Activity                                                                           | Potential contaminants                                                                              | Likely extent and level                                                                                                                                                                                       |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cropping and dry stock grazing (broad acre areas)                                  | Metals and organochlorine pesticides (OCP), including DDT (to control grass grub and other insects) | Low level over pasture cropping areas, predominantly within surface soils                                                                                                                                     |
| Farm sheds, chemical storage sheds                                                 | Metals, OCP, petroleum hydrocarbons                                                                 | Level depend on handling practices, typically localised around sheds and mixing/filling points, mostly constrained to surface soils                                                                           |
| Sheep dips                                                                         | Metals (copper, arsenic, chromium, zinc) and OCP                                                    | Limited to land surrounding dip, holding pens and location of chemical disposal if undertaken on site. Concentrations can be elevated.                                                                        |
| AST or USTs                                                                        | Petroleum hydrocarbons                                                                              | Soils around the tanks, likely limited to surface soil in vicinity of AST, deeper soils may be affected near UST. Potentially elevated concentrations if tanks have leaked or if poor filling practices used. |
| Residential dwellings and other painted structures                                 | Metals (principally lead, arsenic) and OCP if a vegetable garden present                            | Limited to surface soils adjacent to current or former structures, or within former vegetable gardens.                                                                                                        |
| Waste disposal areas (possibly indicated by disturbed ground in the aerial photos) | Metals, OCP, petroleum hydrocarbons                                                                 | Potentially elevated concentrations in waste and soil underlying waste.                                                                                                                                       |



## **3 Site 2 – Lincoln**

### **3.1 Site Description**

Site 2 includes 6 Outline Development Plan (ODP) areas around the township of Lincoln as shown on Figures 3, 4a, and 4b. The site includes 28 existing land parcels (list of parcels as provided by SDC in Appendix A), covering a total of 352 hectares.

#### **3.1.1 Site location and land use**

Outline Development Plan (ODP) area 1 lies to the south of Lincoln, between Springs Road and LI Creek. This parcel covers an area of approximately 58 hectares (over 6 lots) and is predominantly agricultural (cropping and grazing) land. A reservoir is present towards the eastern end of ODP area 1. While this was not listed as a parcel involved in this study by SDC it has been included in this report because it is within the zone change boundary.

ODP area 2 contains 7 existing land parcels with a combined area of approximately 60 hectares of agricultural land (cropping and grazing) adjacent to Edward Street, Elsmere Road and LI Creek to the southeast of Lincoln township. The LI River runs through this area.

Six parcels are in ODP area 3 is to the east of Lincoln, between Birchs Road, Ellesmere Road and Edwards Road and cover approximately 159 hectares. It is agricultural land with some residential buildings.

ODP area 4 is north of the township and covers 10 existing parcels of land with an area of approximately 55 hectares adjacent to Birchs Road and Tancreds Road. Land use is agricultural with a few residential buildings.

Five parcels are in ODP area 5 to the southwest of Lincoln township, adjacent to Springs Road. These cover an area of approximately 12 hectares and are agricultural and residential land.

ODP area 6 is a single parcel covering an area of approximately 3.5 hectares of former horticultural land (crop and food research farm) on the northern edge of Lincoln township. There are also residential buildings in this area.

#### **3.1.2 Site geology and hydrogeology**

The underlying geology is described by Forsyth et al. as grey alluvium of variable thickness, beneath plains or low level terraces.

Based on information in ECan's database, soils beneath Site 2 are deep silt loam and deep silt loam on clay loam (ODP areas 1, 2 and 5) and moderate to deep silt loam on sandy loam (ODP areas 2, 3, 4 and 6).

ECan's well data shows over 50 wells within Site 2. The depth of these wells varies from 6m to 42m. The wells are used for irrigation, stock supply and domestic supply. The majority of the wells are privately owned. Groundwater level monitoring data from two investigation wells (M36/0512 in ODP and M36/0515 in ODP area 1) show groundwater depth ranges between 0.5m and 4.5m below ground level. Based on local topography and location of surface water features, general groundwater flow direction is expected to be towards the south.

## 3.2 Site History

### 3.2.1 Aerial Photographs

Six sets of aerial photographs, from New Zealand Aerial Mapping (1942, 1962/3, 1973, 1984 and 1994) and Terraview (2010), were reviewed to gain historical information for Site 2. The results are summarised in Table 4. Key features are shown on Figures 4a and 4b.

**Table 4: Summary of historical aerial photographs**

| Year   | Run, Scale           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1942   | SN 224,<br>1:16,000  | <p>ODP1: Agricultural land, including cropping. Two tracks cross the western part of the area running approximately northeast-southwest. A railway runs northwest-southeast, crossing the eastern area. A stream marks the eastern boundary.</p> <p>ODP2: Agricultural land, including cropping. A large dwelling and numerous small outbuildings are present towards the northern side of the area. A stream crosses the site north-south and a second stream forms the western boundary. Two small buildings are present on the eastern boundary.</p> <p>ODP3: Agricultural land, including cropping. A dwelling with a garden, two large barns and an orchard are present in the south-central area. A circular structure, possibly a water tank, is present immediately to the southwest of the buildings. A second dwelling with many small outbuildings is present in the northwest corner. A track runs southeast for approximately 700m from these buildings to a small shed. A third dwelling and a shed are present on the eastern boundary. Two small sheds are present in the centre of fields towards the southeast side of the area.</p> <p>ODP4: Agricultural land, including cropping. Two dwellings with gardens, an outbuilding and a small orchard are present on the eastern side. A barn is present in the centre of the area, close to an area of disturbed land, possibly with another building. A second dwelling with gardens and a shed is present on the northern boundary.</p> <p>ODP5: Agricultural land, including cropping. A dwelling, garden and two small sheds are present on the eastern boundary.</p> <p>ODP6: Agricultural land, likely cropping. Two small sheds are present to the northern end. A further small shed is present on the eastern boundary.</p> |
| 1962/3 | SN 1408,<br>1:17,000 | <p>ODP1: A small shed is present on the western boundary.</p> <p>ODP2: A dwelling with two outbuildings is present on the northern boundary.</p> <p>ODP3: The small outbuildings around the dwelling in the south-central area have been replaced with three larger barns. The orchard, circular structure and two sheds in the central fields have been removed.</p> <p>ODP4: Numerous more small buildings are present around the two dwellings on the eastern side, and the orchard has been removed. Three further dwellings with small gardens are present along the eastern boundary.</p> <p>ODP5: No significant change.</p> <p>ODP6: Only one small shed remains at the northern end, around a small, square, fenced area. Four buildings are present in the south.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 1973   | SN 2634,<br>1:25,000 | <p>ODP1: The railway appears vegetated and no longer used. A second shed is present on the western boundary. A large cluster of farm buildings is present in the centre of the area.</p> <p>ODP2: A further dwelling is present on the northern boundary with small garden, garage and shed. A shed is present towards the southern corner.</p> <p>ODP3: Further sheds are present around the buildings in the northwest corner.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Year | Run, Scale           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |                      | <p>ODP4: Wooden structures, possibly related to a sheep-dip, are present immediately west of the cluster of buildings located on the eastern boundary. Grazing stock are visible in the western corner. A small shed is present to the south of the main cluster of buildings. Three circular structures, possibly tanks, are located around the dwelling on the northern boundary.</p> <p>ODP5: Three dwellings are now present along the eastern boundary.</p> <p>ODP6: The square, fenced area at the north appears to be a small pond/reservoir. Two large sheds are present immediately south of the reservoir. A further small shed is present in the cluster of buildings at the south.</p> |
| 1984 | SN 8389,<br>1:25,000 | <p>ODP1: Two additional small sheds are present on the western boundary.</p> <p>ODP2: Three sheds are present immediately west of the existing buildings towards the north of the area. A dwelling and two sheds are present in the western corner.</p> <p>ODP3: A shed is present towards the eastern boundary, and another shed has been added to the cluster of buildings in the south-central area.</p> <p>ODP4: No significant change.</p> <p>ODP5: No significant change.</p> <p>ODP6: No significant change.</p>                                                                                                                                                                            |
| 1994 | SN 9381,<br>1:50,000 | <p>ODP1: A large reservoir is present towards the western end of the area.</p> <p>ODP2: No significant change.</p> <p>ODP3: No significant change.</p> <p>ODP4: Two further dwellings with gardens are present along the eastern boundary.</p> <p>ODP5: A fourth dwelling with garden is present along the eastern boundary.</p> <p>ODP6: The pond/reservoir at northern end has been removed or filled.</p>                                                                                                                                                                                                                                                                                       |
| 2010 | Terraviva<br>image   | <p>ODP1: No significant change.</p> <p>ODP2: The shed towards the south has been removed. Silage storage on northern boundary.</p> <p>ODP3: Grazing stock are visible on central areas.</p> <p>ODP4: No significant change.</p> <p>ODP5: No significant change.</p> <p>ODP6: No significant change.</p>                                                                                                                                                                                                                                                                                                                                                                                            |

### 3.2.2 Certificates of Title

A search of the available historical certificates of title (CTs) for Lot 1 DP 388824 within Site 2 was undertaken to ascertain the period orchards were likely on site. Appendix D contains the certificates of title.

The historic titles showed that this parcel was sold to Lincoln Grange Ltd (later renamed Lincoln Grange Orchards Ltd) in 1984. This correlates with the aerial photographs which show shelter belts being established in the 1984 photograph. As a result, it is possible that organochlorine pesticides as well as metal based chemicals were used to control pests during the orchard operation on this land parcel.

No other titles were searched as sufficient information was available from other sources.

### 3.2.3 Previous investigations

In 2006, Tonkin & Taylor Ltd undertook a ground contamination assessment of the former Crop and Food Research Farm, located on North Belt, Lincoln<sup>3</sup>. The ODP area 6 includes part of the Research Farm. Results from soil samples collected within the portion covered by ODP area 6 showed some elevated levels of metals (primarily lead related to a former dwelling). A remedial action plan was developed and is being implemented as part of the community centre construction. Following this remedial work, all known areas of contamination will have been removed from the Research Farm, and the remaining soils will be below residential guidelines.

### 3.2.4 SDC property files

Property files relating to Site 2 held by SDC were reviewed on 26 November 2010. Relevant information is summarised in Table 5.

**Table 5: Summary of SDC property files**

| ODP Area | Summary of file information                                                                                                                                                                                                                                                                                                                                    |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1        | No property file located.                                                                                                                                                                                                                                                                                                                                      |
| 2        | 1950s: Construction of dwelling (Lot 2 DP 372809).<br>House existing since prior to 1965 (Lot 1 DP 16901).<br>1975: Construction of dwelling (Lot 96 DP 354488).<br>1993: Construction of dwelling, sleep-out and septic tank (Lot 1 DP 63828).<br>2010: Dwelling and pool removed (Lot 96 DP 354488).                                                         |
| 3        | 1979: Construction of implement storage shed (Lot 2 DP 33700).<br>2001: Construction of implement storage shed (Lot 2 DP 33959).<br>2002: Construction of house and farm building (Lot 2 DP 33959).<br>2003: Granting of domestic dwelling consents (Lot 2 DP 65371).                                                                                          |
| 4        | 1950s: Construction of dwelling (Lot 2 DP 56631).<br>1990: Construction of dwelling and commercial greenhouse (Lot 1 DP 16901).<br>2001: Construction of pool (Lot 2 DP 56631).<br>2002: Extension to commercial greenhouse (Lot 1 DP 16901).<br>2006/7: Construction of dwelling (Lot 4 DP 374083).<br>2009: Construction of farm building (Lot 4 DP 374083). |
| 5        | 1986: Replacement of garden shed (Lot 2 DP 22861).<br>1989: Construction of dwelling (Lot 1 DP 54824).<br>1994: Construction of garage and septic tank (Lot 1 DP 26815).<br>1994: Installation of septic tank (unknown date of construction of dwelling) (Lot 2 DP 22861).                                                                                     |
| 6        | 2009: Construction of Lincoln Playcentre (Lot 1 DP 301682).                                                                                                                                                                                                                                                                                                    |

<sup>3</sup> Tonkin & Taylor Ltd. Ground Contamination Investigation Crop & Food Research Farm - North Belt. 2006. Prepared for SDC. Ref 51201.



### 3.2.5 ECan listing

A search of ECan's Listed Land Use Register (LLUR) was requested. A copy of the LLUR listing for Site 2 is attached as Appendix E. The register contains information about contaminated and potentially contaminated sites. A contaminated sites team member confirmed in a letter dated 8 December 2010 that two areas in Site 2 appear on the LLUR:

- Lot 1 DP 301682 (in ODP Area 6) is categorised as "verified HAIL".  
  
ECan indicate that a 5000L underground diesel tank was installed at this lot in the 1960s and used until approximately 1993. It was removed in 1999 at which time two soil samples were taken from the tank pit. TPH was below the most conservative MfE soil acceptance criteria for industrial/commercial use.  
  
In addition, this lot is listed by ECan as being used for market gardens, orchards or glasshouses between the 1950s and 2000. This listing is based on one sample showing elevated levels of cadmium, and another showing elevated levels of lead and zinc. However, ECan reports that soil testing in 2006 (by T&T, see section 3.2.3) adequately characterised the northernmost 80% of the site and that this area is suitable for future residential use. In addition, the south-western corner (approximately 5% of the total area) was shown to be suitable for the childcare centre proposed to be built at that time. The remainder of the site required minor remedial works and these are discussed in Section 3.2.3.
- Pt Lot 1 DP 9172, Lot 1 DP 16901, Lot 1 DP 63828, Lot 96 DP 354488 and Lot 1 DP 388824 (all adjoining lots in ODP area 2) are identified as having former HAIL activity.  
  
ECan indicate that these lots were used as market gardens, orchards or glasshouses between the 1990s and 2006. ECan report that three rounds of soil sampling in 2007 demonstrated that hazardous substances were present at the site, but were below guidelines for residential site use. The investigation data were not available for review.

The ECan letter also summarises soil and groundwater investigations carried out on Lot 6 DP 374333 (ODP area 1) in 2008. According to ECan, some cropping had previously occurred on the site and a former railway passed through it, but results of testing showed heavy metals, total DDT, polycyclic aromatic hydrocarbons (PAH) and TPH were all below residential land use criteria. The data and criteria were not provided.

Finally, ECan note in their letter that the proposed Lincoln University Landfill is located within 75m of ODP area 5. However, necessary consents to start operation of the landfill are still on hold and no landfilling activity has yet occurred at this location.

### 3.2.6 Site walkover inspection

A site visit was made by a Tonkin & Taylor Environmental Engineer on 16 December 2010. Given the size of the subject area, it was not possible to undertake a detailed walkover the land parcels, however, all were viewed from the road to confirm the findings of the historical review.

For Site 2, the significant findings of the site inspection were:

- ODP area 1 forms part of the Lincoln University Dairy Farm.
- ODP area 2 still had some shelter belts present, but no orchard activities were occurring. The land appeared to be used for cropping and grazing.
- Cropping and grazing was the predominant use for ODP area 3, with a cluster of buildings present in the central southern portion of the area. These consisted of a dwelling, farm sheds and sheep yards. It is possible that a sheep dip may be present in this location.

- Cropping and horticultural activities were being undertaken within ODP area 4 and storage silos were noted as well as horse stables.
- Cropping and horticultural activities were also noted on ODP area 5.

### 3.3 Summary of historical information and potential for ground contamination

The walkover inspection and file review showed that the majority of Site 2 was used for dry stock grazing and cropping as well as small portions of horticulture and dairying.

Records reveal that these activities have likely been undertaken in the area since the mid to late 1800's, most likely commencing with stock grazing and then progressing to more diversified uses such as cropping, dairying and orchards. Overall the ODP areas in Site 2 are representative of pastoral farming and cropping land uses on the lower Canterbury plains.

Activities associated with these land uses do have potential to cause contamination of the ground, albeit at relatively low levels across the broad acre areas of the sites. Higher levels of contaminants may be found in localised areas around farm buildings, sheep dips, waste disposal pits and wherever agrochemicals/fuels may have been stored or mixed.

A summary of potential land uses at Site 2 which may have resulted in ground contamination, and the likely nature and extent, is summarised in Table 3.

**Table 3 Summary of potential ground contamination within Site 2**

| Activity                                           | Potential contaminants                                                                              | Likely extent and level                                                                                                                                                                                         |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cropping and dry stock grazing (broad acre areas)  | Metals and organochlorine pesticides (OCP), including DDT (to control grass grub and other insects) | Low level over pasture cropping areas, predominantly within surface soils.                                                                                                                                      |
| Orchard areas                                      | Metals and OCP (insect and fungal control)                                                          | Low levels of orchard areas, localised hotspots at ends of rows and mixing/disposal areas.                                                                                                                      |
| Farm sheds, chemical storage sheds                 | Metals, OCP petroleum hydrocarbons                                                                  | Level depends on handling practices, typically localised around sheds and mixing/filling points, mostly constrained to surface soils.                                                                           |
| Sheep dips                                         | Metals (copper, arsenic, zinc) and OCP                                                              | Limited to land surrounding dip, holding pens and location of chemical disposal if undertaken on site. Concentrations can be elevated.                                                                          |
| AST or USTs associated with farm buildings         | Hydrocarbons                                                                                        | Soils around the tanks, likely limited to surface soil in vicinity of ASTs, deeper soils may be affected near USTs. Potentially elevated concentrations if tanks have leaked or if poor filling practices used. |
| Railway line                                       | Hydrocarbons, metals and PAHs                                                                       | Along and under lines where oil or fuel may have been dumped or leaked.                                                                                                                                         |
| Residential dwellings and other painted structures | Metals (principally lead and arsenic) and OCP if a vegetable garden present                         | Limited to surface soils adjacent to current or former structures, or within former vegetable gardens.                                                                                                          |

## 4 Conclusions

The land around Rolleston and Lincoln that is proposed for rezoning to residential land is currently used, and has been since the 1800s, for agricultural activities. These activities include cropping, stock grazing, orchards and dairy farming. Associated with these activities are farm buildings, implement sheds, sheep dips, chemical and fuel storage sheds and residential dwellings. All of these structures and features are typical of this type of land use, and occur across much of the Canterbury Region.

As a result of this long history of agricultural land use, some level of contaminants should be expected in the soils of the zone change areas. General application of agrochemicals (such as DDT) to control insect, weed and fungal growth is likely to have caused low and relatively consistent levels of agrochemicals across the farmed areas. Higher and more variable levels of contamination may be present in surface soil around the farm buildings, from the storage, spillage, mixing and handling of these chemicals. Elevated concentrations of contaminants are also likely present in surface and deeper soil around areas used for sheep dipping (permanent sheep dip structures and locations of mobile dipping).

In addition to the presence of agrochemicals, most farms have on site fuel storage, whether in an above, or below ground storage tank (AST or UST). These may have leaked, or spills may have occurred during the filling or transfer of fuel. As a result, the soils under or around the tanks or filling points may be contaminated with petroleum hydrocarbons.

Many farms may have had, or still have, small waste pits for disposing of animal waste and on farm refuse. Localised contamination of the surrounding soils, and potentially groundwater may be caused by these pits.

Given the age of many of the farm buildings and dwellings in the zone change area(s), it is likely that many of these are, or were, painted with a lead based paint. Therefore lead contamination of surface soils adjacent to these buildings should also be expected.

Whilst the various activities and structures on the proposed zone change land may have caused contamination of the ground, the levels and type of contamination is expected to be typical of this type of land use. This type of land is commonly developed for residential use within Canterbury and in other regions around New Zealand, and it would be unusual for ground contamination to preclude the development of this type of land.

No information was found that indicated the proposed zone change area had special characteristics that would result in ground contamination at higher levels, or greater extents than typical agricultural land use. Consequently, there are proven methods from remediating or managing the type and levels of contaminants that are commonly found in the soils with this sort of land use history.

As all sites within the PC7 area (Sites 1 and 2) have potential for some level of ground contamination, we would recommend that soil sampling should be undertaken to confirm the levels and nature of contaminants present in the soils. The sampling should aim to characterise the broad acre contamination as well as that in the vicinity of farm buildings, dwellings, waste pits or other discrete features. This could be undertaken at the subdivision consent stage. All investigations should be undertaken in accordance with the Ministry for the Environment's various Contaminated Land Management Guidelines. This approach is consistent with the proposed National Environmental Standards for Soil Contamination (currently in draft).

## 5 Applicability

This report has been prepared for the benefit of Selwyn District Council with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and agreement.

Tonkin & Taylor Ltd

Environmental and Engineering Consultants

Report prepared by:

A handwritten signature in blue ink, appearing to read 'Jared Pettersson', written over a horizontal dotted line.

Jared Pettersson

Environmental Engineer

Authorised for Tonkin & Taylor Ltd by:

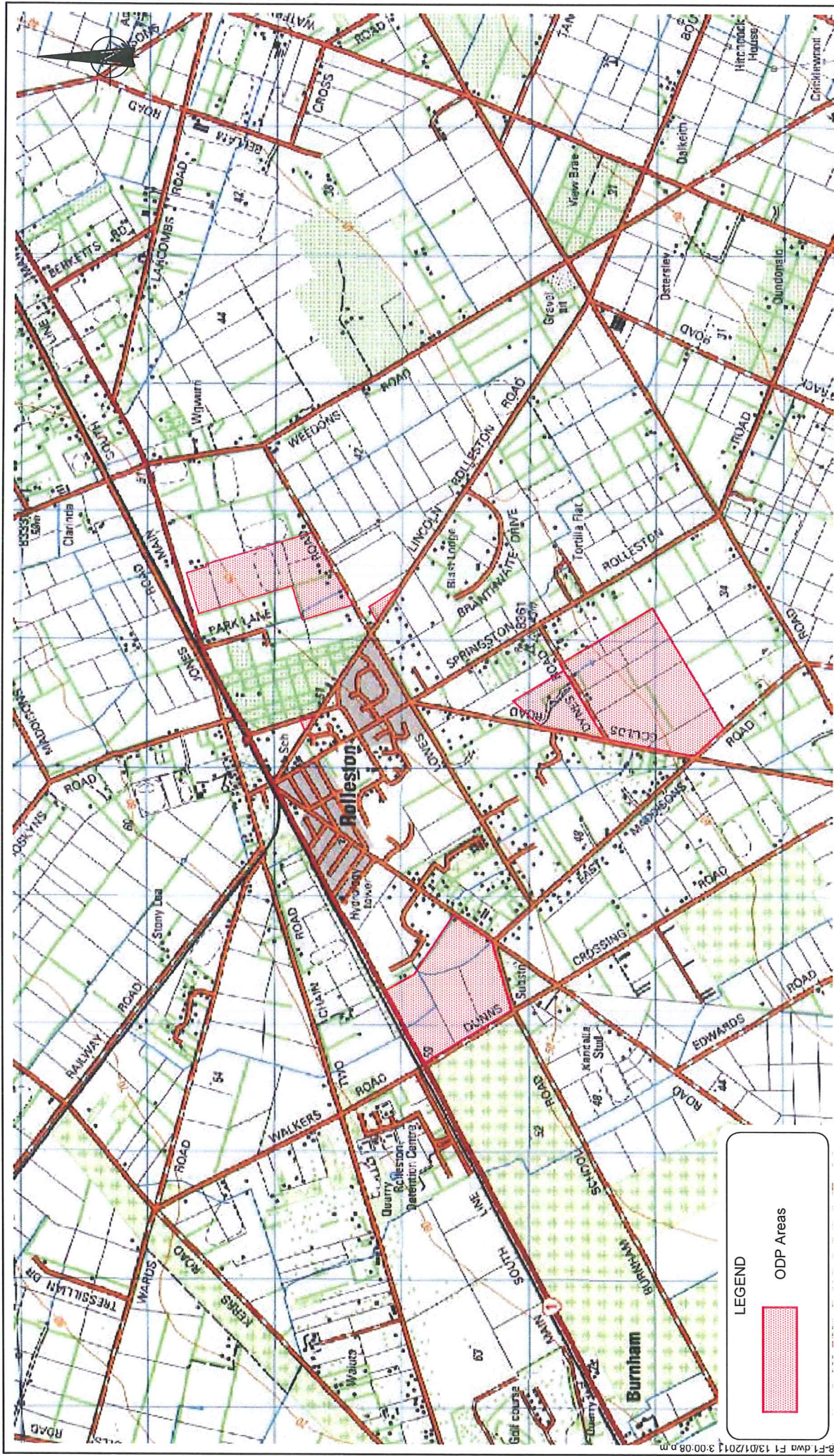
A handwritten signature in blue ink, appearing to read 'Grant A Lovell', written over a horizontal dotted line.

Grant A Lovell

Christchurch Group Manager

rpt\_SDC Plan ChangeDec10\_draft\_pek.docx





**LEGEND**

 ODP Areas

SCALE 1: 40,000

0 400 800 1200 1600 2000(m)

Topomap sourced from Land Information New Zealand data  
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**Tonkin & Taylor**  
Environmental and Engineering Consultants  
Level 6, 151 Kilmore St, Christchurch

|                        |       |        |
|------------------------|-------|--------|
| DRAWN                  | RBS   | Jan.11 |
| DRAFTING CHECKED       | CA/lu |        |
| APPROVED               | CA/lu |        |
| CADFILE : 51778-F1.dwg |       |        |
| SCALES (AT A4 SIZE)    |       |        |
| 1: 40,000              |       |        |
| PROJECT No.            |       |        |
| 51778                  |       |        |

SELWYN DISTRICT COUNCIL  
DESK STUDY GROUND CONTAMINATION ASSESSMENT  
PLAN CHANGE 7 – ROLLESTON TOWNSHIP  
Site 1 Location Map





SCALE 1: 12,500  
0 100 200 300 400 500 600 700 800 (m)

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Property boundaries sourced from Land Information New Zealand data  
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|                     |                  |        |
|---------------------|------------------|--------|
| DRAWN               | RBS              | Jan.11 |
| DRAFTING CHECKED    |                  |        |
| APPROVED            |                  |        |
| CADFILE :           | 51778-F2a-2b.dwg |        |
| SCALES (AT A4 SIZE) | 1:12,500         |        |
| PROJECT No.         | 51778            |        |

|                                            |           |        |
|--------------------------------------------|-----------|--------|
| SELWYN DISTRICT COUNCIL                    |           |        |
| DESK STUDY GROUND CONTAMINATION ASSESSMENT |           |        |
| PLAN CHANGE 7 – ROLLESTON TOWNSHIP         |           |        |
| Site 1 Features – ODP Areas 2, 3 & 4       |           |        |
| FIG. No.                                   | Figure 2a | REV. 0 |





SCALE 1: 20,000

Aerial photo sourced from Terralink International  
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Property boundaries sourced from Land Information New Zealand data  
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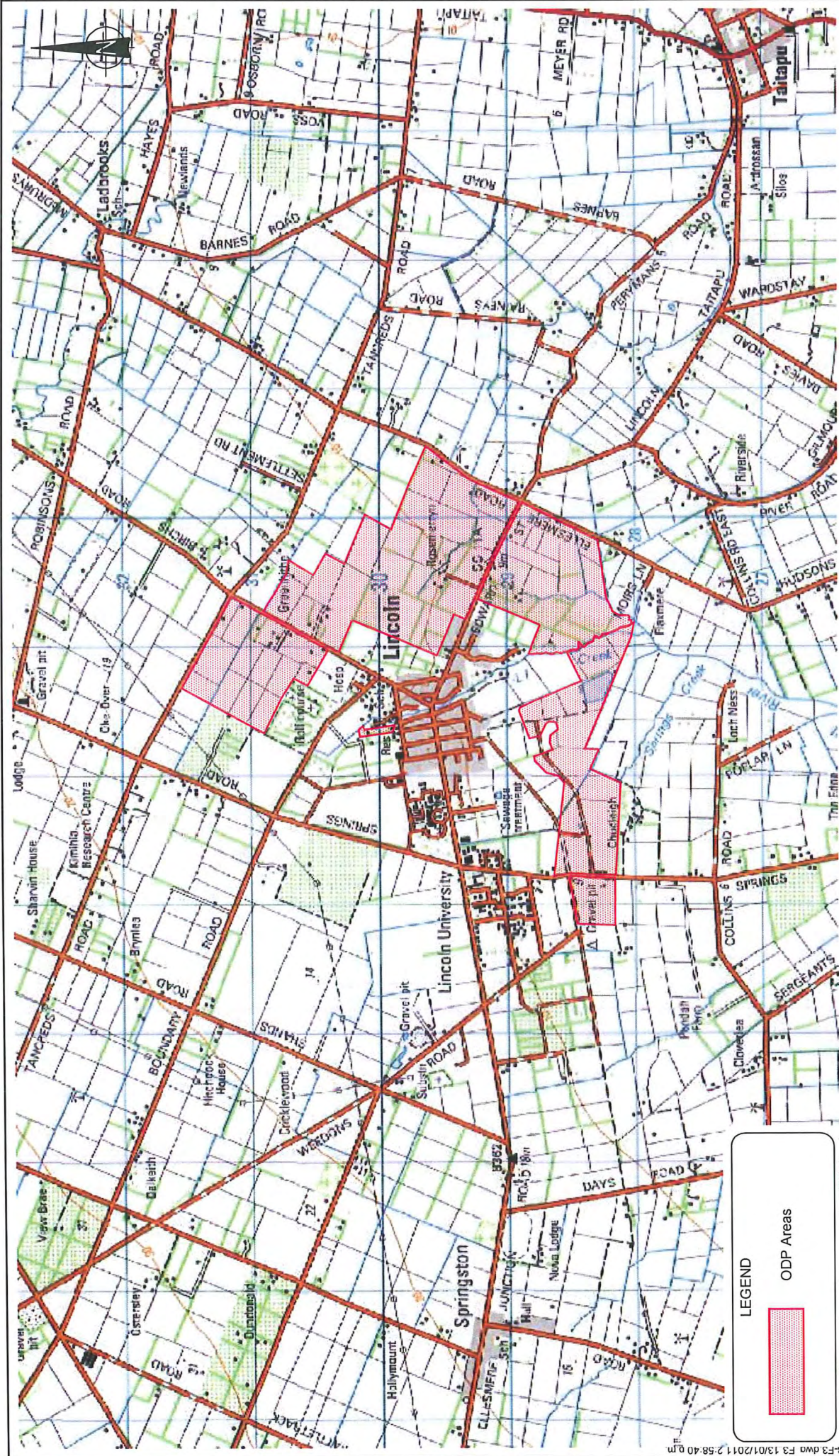
**Tonkin & Taylor**

Environmental and Engineering Consultants  
Level 6, 151 Kilmore St, Christchurch

|                     |                  |        |
|---------------------|------------------|--------|
| DRAWN               | RBS              | Jan.11 |
| DRAFTING CHECKED    | CA-III           |        |
| APPROVED            | CA-VII           |        |
| CADFILE :           | 51778-F2a-2b.dwg |        |
| SCALES (AT A4 SIZE) | 1: 20,000        |        |
| PROJECT No.         | 51778            |        |

|                                            |           |        |
|--------------------------------------------|-----------|--------|
| SELWYN DISTRICT COUNCIL                    |           |        |
| DESK STUDY GROUND CONTAMINATION ASSESSMENT |           |        |
| PLAN CHANGE 7 – ROLLESTON TOWNSHIP         |           |        |
| Site 1 Features – ODP Areas 1, 5 & 6       |           |        |
| FIG. No.                                   | Figure 2b | REV. 0 |





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Level 6, 151 Kilmore St, Christchurch

|                     |              |        |
|---------------------|--------------|--------|
| DRAWN               | RBS          | Jan.11 |
| DRAFTING CHECKED    | CP           | 11/11  |
| APPROVED            | CP           | 11/11  |
| CADFILE :           | 51778-F3.dwg |        |
| SCALES (AT A4 SIZE) | 1:40,000     |        |
| PROJECT No.         | 51778        |        |

SELWYN DISTRICT COUNCIL  
DESK STUDY GROUND CONTAMINATION ASSESSMENT  
PLAN CHANGE 7 – LINCOLN TOWNSHIP  
Site 2 Location Map

FIG. No. **Figure 3** REV. **0**

Topomap sourced from Land Information New Zealand data  
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**SCALE 1: 12,500**

0 100 200 300 400 500 600 700 800 (m)

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Property boundaries sourced from Land Information New Zealand data  
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**SELWYN DISTRICT COUNCIL**

**DESK STUDY GROUND CONTAMINATION ASSESSMENT**

**PLAN CHANGE 7 – LINCOLN TOWNSHIP**

Site 2 Features – ODP Areas 1, 2 & 5

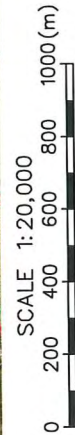
FIG. No. **Figure 4a**

REV. **0**

|                            |         |        |  |  |  |
|----------------------------|---------|--------|--|--|--|
| DRAWN                      | RBS     | JUN.11 |  |  |  |
| DRAFTING                   | CHECKED |        |  |  |  |
| APPROVED                   |         |        |  |  |  |
| CADFILE : 51778-F4a-4b.dwg |         |        |  |  |  |
| SCALES (AT A4 SIZE)        |         |        |  |  |  |
| 1:12,500                   |         |        |  |  |  |
| PROJECT No.                |         |        |  |  |  |
| 51778                      |         |        |  |  |  |

**Tonkin & Taylor**  
Environmental and Engineering Consultants  
Level 6, 151 Kilmore St, Christchurch





SCALE 1: 20,000  
0 200 400 600 800 1000 (m)

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Property boundaries sourced from Land Information New Zealand data  
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|                     |                  |         |
|---------------------|------------------|---------|
| DRAWN               | RBS              | Jan, 11 |
| DRAFTING CHECKED    | CA/ML            |         |
| APPROVED            | CA/ML            |         |
| CADFILE :           | 51778-F4a-4b.dwg |         |
| SCALES (AT A4 SIZE) | 1: 20,000        |         |
| PROJECT No.         | 51778            |         |

SELWYN DISTRICT COUNCIL  
DESK STUDY GROUND CONTAMINATION ASSESSMENT  
PLAN CHANGE 7 – LINCOLN TOWNSHIP  
Site 2 Features – ODP Areas 3, 4 & 6

FIG. No. 4b  
REV. 0



**Appendix A: List of land parcels in PC7**



Selwyn District Council - Land Parcels in Rolleston

| Address                                  | Legal Description              | Area (ha) |
|------------------------------------------|--------------------------------|-----------|
| LOT 407 DP 341095                        | 2 Norman Kirk Drive, Rolleston | 4.8       |
| LOT 3 DP 74253 BLK III LEESTON SD        | Main South Road, Rolleston     | 20.0      |
| LOT 2 DP 65668 BLK III LEESTON SD        | Levi Road, Rolleston           | 4.0       |
| LOT 1 DP 65668 BLK III LEESTON SD        | 126 Levi Road, Rolleston       | 6.6       |
| LOT 1 DP 68746 BLK III LEESTON SD        | 116 Levi Road, Rolleston       | 19.5      |
| RS 7556 BLK III LEESTON SD               | 157 Levi Road, Rolleston       | 7.2       |
| RURAL SECS 9522 19792 23251 BLK III LEES | 1092 Goulds Road, Rolleston    | 33.7      |
| LOT 1 DP 8833 RURAL SECS 12514 15710 BL  | Dynes Road, Rolleston          | 58.8      |
| LOT 1 DP 372247                          | East Maddisons Road, Rolleston | 4.0       |
| LOT 2 DP 372247 BLK III LEESTON SD       | East Maddisons Road, Rolleston | 4.0       |
| LOT 3 DP 372247 BLK III LEESTON SD       | Goulds Road, Rolleston         | 4.0       |
| LOT 4 DP 372247 BLK III LEESTON SD       | Goulds Road, Rolleston         | 12.0      |
| LOT 500 DP 425548 PT LOT 1 DP 75811 PT S | Main South Road, Rolleston     | 44.0      |
| LOT 10 DP 71316 BLK III LEESTON SD       | Dunns Crossing Road, Rolleston | 4.0       |
| LOT 9 DP 71316 BLK III LEESTON SD        | Dunns Crossing Road, Rolleston | 4.0       |
| LOT 8 DP 71316 BLK III LEESTON SD        | Dunns Crossing Road, Rolleston | 4.0       |
| LOT 1 DP 361539                          | 7 Newman Road, Rolleston       | 0.5       |
| LOT 2 DP 361539                          | 9 Newman Road, Rolleston       | 0.6       |
| LOT 3 DP 361539                          | 25 Newman Road, Rolleston      | 0.6       |
| LOT 4 DP 361539                          | 27 Newman Road, Rolleston      | 0.5       |
| LOT 5 DP 361539                          | 31 Newman Road, Rolleston      | 0.5       |
| LOT 6 DP 361539                          | 19 Newman Road, Rolleston      | 0.5       |
| LOT 7 DP 361539                          | 13 Newman Road, Rolleston      | 0.5       |
| LOT 8 DP 361539                          | 1 Newman Road, Rolleston       | 0.6       |
| LOT 9 DP 361539                          | 2 Newman Road, Rolleston       | 0.5       |
| LOT 10 DP 361539                         | 14 Newman Road, Rolleston      | 0.5       |
| LOT 11 DP 361539                         | 30 Newman Road, Rolleston      | 0.5       |
| LOT 12 DP 361539                         | 24 Newman Road, Rolleston      | 0.5       |
| LOT 13 DP 361539                         | 22 Newman Road, Rolleston      | 0.5       |
| LOT 14 DP 361539                         |                                | 0.5       |
| Total area:                              |                                | 242.0     |

Selwyn District Council - Land Parcels in Lincoln

| Legal Description | Address                    | Area (ha) |
|-------------------|----------------------------|-----------|
| PT LOT 1 DP 9172  | Edward Street, Lincoln     | 26.5      |
| LOT 2 DP 33700    | 581 Birchs Road, Lincoln   | 46.6      |
| LOT 2 DP 54824    | Springs Road, Lincoln      | 10.6      |
| LOT 1 DP 56631    | 530 Birchs Road, Lincoln   | 2.0       |
| LOT 6 DP 374083   |                            | 4.1       |
| LOT 1 DP 16901    | 96 Edward Street, Lincoln  | 0.2       |
| LOT 1 DP 372809   | 560 Birchs Road, Lincoln   | 4.0       |
| LOT 1 DP 54824    | 1472 Springs Road, Lincoln | 0.8       |
| LOT 1 DP 26815    | 1482 Springs Road, Lincoln | 0.1       |
| LOT 1 DP 63828    | 90 Edward Street, Lincoln  | 0.7       |
| LOT 8 DP 374083   | Birchs Road, Lincoln       | 9.0       |
| LOT 5 DP 26021    |                            | 12.1      |
| LOT 2 DP 33959    | 555 Birchs Road, Lincoln   | 8.6       |
| LOT 1 DP 364266   | Edward Street, Lincoln     | 6.5       |
| LOT 2 DP 22861    | 1480 Springs Road, Lincoln | 0.1       |
| LOT 2 DP 26815    | 1484 Springs Road, Lincoln | 0.1       |
| LOT 96 DP 354488  |                            | 5.4       |
| LOT 2 DP 56631    | 550 Birchs Road, Lincoln   | 2.2       |
| LOT 4 DP 374083   | 564 Birchs Road, Lincoln   | 4.0       |
| LOT 1 DP 301682   | North Belt, Lincoln        | 3.4       |
| LOT 2 DP 372809   | Birchs Road, Lincoln       | 4.0       |
| LOT 5 DP 374083   |                            | 4.0       |
| LOT 1 DP 388824   | Edward Street, Lincoln     | 28.0      |
| RS 1904           | 520 Birchs Road, Lincoln   | 20.4      |
| LOT 2 DP 364266   | Edward Street, Lincoln     | 76.4      |
| LOT 6 DP 374333   | Springs Road, Lincoln      | 58.3      |
| LOT 2 DP 65371    | Edward Street, Lincoln     | 8.7       |
| LOT 7 DP 374083   | Birchs Road, Lincoln       | 5.6       |
|                   | Total area:                | 352.4     |

**Appendix B:        Selected certificates of title: Site 1**





# COMPUTER FREEHOLD REGISTER UNDER LAND TRANSFER ACT 1952

Historical Search Copy



**Identifier** CB10K/1098  
**Land Registration District** Canterbury  
**Date Issued** 30 July 1971

**Cancelled**

**Prior References**  
CB308/256

---

|                          |                                                                                            |
|--------------------------|--------------------------------------------------------------------------------------------|
| <b>Estate</b>            | Fee Simple                                                                                 |
| <b>Area</b>              | 42.7373 hectares more or less                                                              |
| <b>Legal Description</b> | Rural Section 9522, Rural Section 12514,<br>Rural Section 15710 and Rural Section<br>19792 |

**Original Proprietors**

David John Foster as to a 1/2 share  
Annette Pamela Foster as to a 1/2 share

---

**Interests**

919515.1 Mortgage to Bank of New Zealand - 7.2.1991 at 1:55 pm  
7797575.1 Variation of Mortgage 919515.1 - 29.4.2008 at 9:00 am  
8289164.1 Transfer to Foster Holdings Limited - 19.3.2010 at 12:07 pm  
8602534.2 Discharge of Mortgage 919515.1 - 1.10.2010 at 11:24 am  
8602534.3 Transfer of part Section 1 SO 433412 to Selwyn District Council pursuant to Section 17 Public works Act 1981 - 1.10.2010 at 11:24 am  
CT 535726 issued for balance after excluding part Section 1 SO 433412 - see Transfer 8602534.3 - 1.10.2010 at 11:24 am  
8602534.4 CTs issued - 1.10.2010 at 11:24 am

|                                          |              |
|------------------------------------------|--------------|
| <b>Legal Description</b>                 | <b>Title</b> |
| part Section 1 Survey Office Plan 433412 | 533853       |
| CANCELLED                                |              |

References  
Prior C/T. 308/256

Transfer No. ---  
N/C. Order No. 838679

Land and Deeds 69



# REGISTER

No. 10K/1098

## CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT

This Certificate dated the 30th day of July one thousand nine hundred and seventy one under the seal of the District Land Registrar of the Land Registration District of Canterbury.

WITNESSETH that DORIS NGAIRE FOSTER of Rolleston, Widow as Administratrix —

is seized of an estate in fee-simple (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon) in the land hereinafter described, delineated with bold black lines on the plan hereon, be the several admeasurements a little more or less, that is to say: All that parcel of land containing 105 acres

2 roads 17 perches or thereabouts situated in Block III of the Leeston Survey District being Rural Sections 9522, 12514, 15710 and 19792 —



Assistant Land Registrar

Subject to:-

- (i) Mortgage 741454 to Amy Edith Lowe and Ngaire Doris Foster on shares - 15/7/1968 at 2.30 p.m.
- (ii) Mortgage 838017 to Pyne Gould Guinness Limited - 13/12/1974 at 2.30 p.m.
- (iii) No. 838018 Memorandum of Priority making Mortgage 838017 first Mortgage and Mortgage 741454 second Mortgage - 23/7/1971 at 2.30 p.m.

*[Signature]* A.L.R.

Transfer 19919/3 to David John Foster of Rolleston, Farmer - 13.12.1974 at 1.52 p.m.

A.L.R.

Mortgage 19919/4 to Pyne Gould Guinness Limited - 13.12.1974 at 1.52 p.m.

A.L.R.

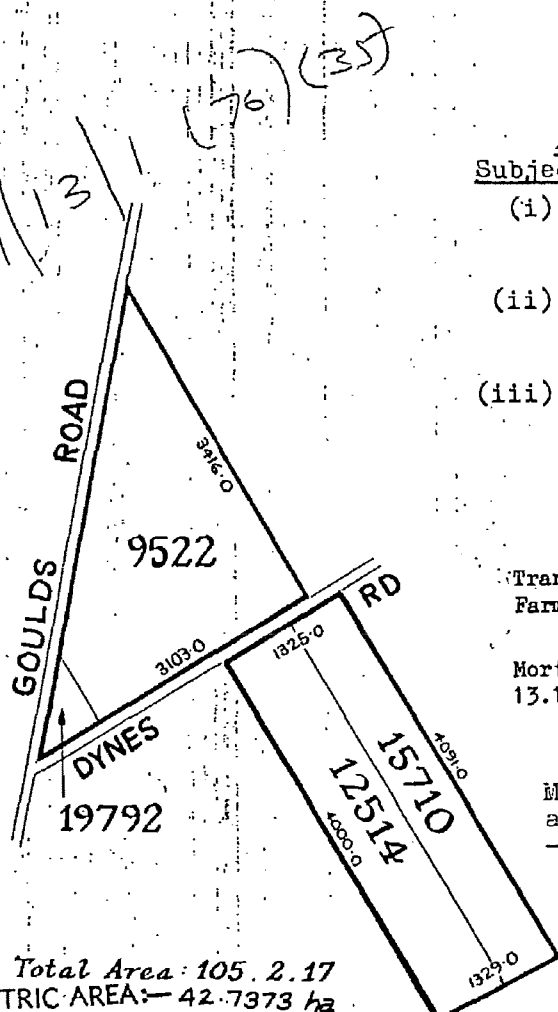
Mortgage 50152/1 to The Rural Banking and Finance Corporation of New Zealand - 10.9.1975 at 9.37 a.m.

A.L.R. *[Signature]*

Variation of Mortgage - 20.10.1977 at 11.48 am.

*[Signature]* A.L.R.

- OVER -



Total Area: 105.2.17  
METRIC AREA: 42.7373 ha

Scale: 1 inch = 15 chains

No. 10K/1098

Variation of Mortgage 50152/1 - 23.1.1979 at 12.22 pm.

*[Signature]*  
for A.L.R.

Variation of Mortgage 50152/4 - 21-9-1979 at 11.51a.m.

DISCHARGED

*[Signature]*  
for A.L.R.

Variation of Mortgage 50152/1 - 24.2.1981 at 9.31 am.

for A.L.R.

Variation of Mortgage 50152/1 - 18-11-1981 at 11.38a.m.

*[Signature]*

for A.L.R.

Variation of Mortgage 50152/1 - 7-7-1982 at 11.13a.m.

*[Signature]*

Mortgage 401969/2 - 11.42a.m. 1982 at 11.42a.m.

DISCHARGED

*[Signature]*  
for A.L.R.

No. 401969/3 Memorandum of Priority making Mortgages 401969/2 and 50152/1 first and second Mortgages respectively - 21-9-1982 at 11.42a.m.

*[Signature]*  
for A.L.R.

No. 426868/1 Change of ~~NAME~~ of the mortgagee under mortgage 401969/2 to Nicoll Cooney Argyle & Co. Solicitors Nominee Company Limited - 25.3.1983 at 11.16 a.m.

Mortgage 481665/1 to Bank of New Zealand - 28.3.1984 at 11.59a.m.

DISCHARGED

*[Signature]*  
for A.L.R.

501231/1 Change of Name of the Mortgagee under Mortgage 401969/2 to Nicoll Cooney Solicitors Nominee Company Limited - 6.8.1984 at 12.12p.m.

*[Signature]*

of a one-half share ~~of A.L.R.~~ Transfer 533430/2/ to Annette Pamela Foster of Rolleston, Married Woman - 1.3.1985 at 11.03a.m.

*[Signature]*  
for A.L.R.

Mortgage 533430/3 to Nicoll Cooney Solicitors Nominee Company Limited - 1.3.1985 at 11.03a.m.

DISCHARGED

*[Signature]*  
for A.L.R.

Mortgage 533430/4 to The Rural Banking and Finance Corporation - 1.3.1985 at 11.03a.m.

DISCHARGED

*[Signature]*  
for A.L.R.

No. 533430/6 Memorandum of Priority making Mortgages 533430/3, 533430/4 and 481665/1 first, second and third Mortgages respectively - 1.3.1985 at 11.03a.m.

for A.L.R.

The discharge memorial has not been endorsed on the outstanding duplicate of Mortgage 481665/1 production of the same having been dispensed with in terms of Section 111 Land Transfer Act 1952.

for A.L.R.

Mortgage 825587/2 to The Rural Banking and Finance Corporation of New Zealand - 5.9.1989 at 1.55pm

DISCHARGED

*[Signature]*  
for A.L.R.

Mortgage 919515/1 to Bank of New Zealand - 7.2.1991 at 1.55pm

for A.L.R.





[FORM B.]



Register-book,  
Vol. 308, folio 256

Mortgage 11,000, produced 2 September  
1920 at 2.26 p.m. James Hobcroft to  
Herbert Henry Black  
Cath. H. H. Black

Over

308/256

308/256  
Mortgage 124529 produced 6.10.1929  
at 2.45 pm James Holcroft to Cyril  
Alexander Stanger  
J. Dampy  
adk

Transfer 162376 produced 17 December  
1924 at 2.15 pm The Registrar of the  
Supreme Court (16116999) to Mary  
Augusta Swanson wife of William  
Swanson of Hororata farmer  
J. Dampy  
adk

Mortgage 141130 produced 17 December  
1924 at 1.15 pm Mary Augusta Swanson  
to Edward J. Dampy  
J. Dampy  
adk

Transfer 192340 produced 11 December  
1929 at 10.55 am Mary Augusta  
Swanson to William Dyer of  
Rolliston Farmer  
J. Dampy  
adk

Extension of the term of Mortgage 141130  
produced 11 December 1929 at 3 pm  
J. Dampy  
adk

Transfer 201978 produced 13.11.1932  
at 11 am McManus Charles Dearnley under  
Power of Sale in Mortgage 141130 to  
Ernest Ackerman Smith of Lincoln  
farmer  
J. Dampy  
adk

Mortgage 182639 produced 13.11.1932  
at 11 am Ernest Ackerman Smith to  
McManus Charles Dearnley and Joyce  
Blunden wife of Charles Dearnley  
J. Dampy  
adk

Mortgage 185191 produced 3 October  
1933 at 11.30 am Ernest Ackerman  
Smith to Harold Dearnley, remwood  
and James Dearnley Wilding  
J. Dampy  
adk

Charge No 1602 under Section 11 of the Land and  
Income Tax Amendment Act 1924 entered 22.11.1932  
19.11.1932  
Charge No 1716 under Section 11 of the Land and  
Income Tax Amendment Act 1924 entered 21.11.1932  
19.11.1932  
J. Dampy  
adk

K.13.1933 Evidence of the death of the deceased  
at 1.15 pm at 1.15 pm at 1.15 pm  
J. Dampy  
adk

at 3.40. Evidence of the marriage of Joyce  
Mary Blunden (formerly Dearnley) and above described as  
Joyce Blunden of the mortgages under  
Mortgage 182639 with John Warren Drury Fisher  
Entered 26 August 1940 at 12.40 pm  
J. Dampy  
adk

Transmission 23700 of the interest of  
Marion Mary Dearnley deceased  
in Mortgage 182639 to Alfred Batten  
Entered 18 November 1941 at 11.14 am  
J. Dampy  
adk

Transmission 31384 to the Perpetual Trustees  
Estate and Agency Company of New Zealand  
Limited Entered 13 June 1941 at 3 pm  
J. Dampy  
adk

Transfer 456480 produced 26 June 1941  
at 11.45 am The Perpetual Trustees  
Estate and Agency Company of New Zealand  
Limited to Katie  
Smith of Lincolnton spinster  
J. Dampy  
adk

Transmission 11322 to Allan Leslie of  
Eltham Veterinary Surgeon and Unwin  
Henry Harman of Christchurch Solicitor  
as Executors Entered 28 May 1942 at 11.25 am  
J. Dampy  
adk

374930 Transfer Allan Leslie and Unwin Henry  
Harman to John Foster of Rolliston Farmer  
produced 23 March 1943 at 12.30 pm  
J. Dampy  
adk

374931 Mortgage John Foster to Mary and Amy  
Edith Lowe in shares of 1/2 each  
12.22 pm  
J. Dampy  
adk

Variation of the terms of Mortgage 374931  
14/4/1952 at 2.15 pm  
J. Dampy  
adk

Transmission 679141 of the share of Levi Lowe in  
Mortgage 374931 to The Public Trustee - Entered 19.4.1966  
at 2.30 pm  
J. Dampy  
adk

Discharge of Mortgage 374931  
as to the share of The Public  
Trustee 15-7-1968 at 10.30 am  
J. Dampy  
adk

Mortgage 741454 to Amy Edith  
Lowe and Ngare Denis Foster  
in shares 5-7-1968 at 10.30 am  
J. Dampy  
adk

Transmission 772219 to Denis Ngare Foster  
as Administrator of the Estate of  
John Warren Drury Fisher  
4.8.1969 at 11.15 am  
J. Dampy  
adk

Mortgage 772220 to Denis Ngare Foster  
as Administrator of the Estate of  
John Warren Drury Fisher  
4.8.1969 at 11.15 am  
J. Dampy  
adk

Memorandum of Priority making Mortgage 772220  
first mortgage and Mortgage no 741454 second  
mortgage 4.8.1969 at 11.30 am  
J. Dampy  
adk

See front page

**Appendix C:**

**ECan LLUR listing Site 1**



Attn: Jared Pettersson  
Tonkin and Taylor  
PO Box 13055  
Christchurch

58 Kilmore Street  
PO Box 345  
Christchurch 8140  
P. 03 365 3828  
F. 03 365 3194  
E. [ecinfo@ecan.govt.nz](mailto:ecinfo@ecan.govt.nz)  
Customer Services  
P. 03 353 9007 or 0800 324 636  
[www.ecan.govt.nz](http://www.ecan.govt.nz)

Dear Jared

Thank you for submitting your property enquiry for land within the Rolleston area. I have searched our Listed Land Use Register (LLUR) which holds information about sites that have been used, or are currently used for activities which have the potential to have caused contamination.

**There is one LLUR site located on the land parcels you enquired about.** The enclosed LLUR statements indicate the location of the site relative to this land, and detail the information we currently hold for the site on the register. This information is to be used by Tonkin and Taylor in accordance with the enclosed Memorandum of Understanding.

The LLUR does not contain all the information held by Environment Canterbury about a property, and other information relevant to potential contamination may be held in other files (for example consent and enforcement files).

If your enquiry relates to a farm property, please be aware that many current and past activities undertaken on farms (such as the storage, formulation and disposal of pesticides, offal pits, foot rot troughs, animal dips and underground or above ground fuel tanks) have the potential to cause contamination and these may not be listed on the LLUR.

Please contact me if you wish to discuss the contents of this letter, or if you require additional information.

Yours faithfully



Nick Griffiths  
**Contaminated Sites Officer**

Encl:

Statements from Environment Canterbury's Listed Land Use Register

# Statement from the Listed Land Use Register

58 Kilmore Street, PO Box 345, Christchurch

General enquiries: 03 365 3828

Fax: 03 365 3194

Email: [ecinfo@ecan.govt.nz](mailto:ecinfo@ecan.govt.nz)

Customer services: 03 353 9007

or: 0800 EC INFO (0800 324 636)

Website: [www.ecan.govt.nz](http://www.ecan.govt.nz)

**Date:**

7 December 2010

**Land Parcels:**

|                     |                             |
|---------------------|-----------------------------|
| • Lot 1 DP 68746    | Valuation No(s): 2405505100 |
| • Lot 3 DP 74253    | Valuation No(s): 2405500701 |
| • Lot 2 DP 65668    | Valuation No(s): 2405504700 |
| • RS 7556           | Valuation No(s): 2405510000 |
| • Lot 1 DP 65668    | Valuation No(s): 2405504900 |
| • Lot 407 DP 341095 | Valuation No(s): 2405350100 |



## Summary of sites:

There are no sites associated with the area of enquiry.

Please note that the above table represents a summary of sites intersecting the area of enquiry only.

For further information from Environment Canterbury, contact the Contaminated Sites Officer and refer to enquiry number 6537.

**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 and Environment Canterbury's Contaminated Land Information Management Strategy (ECan 2009).*

*This information reflects Environment Canterbury's current understanding of this site, which is based only on the information thus far obtained by it and held on record concerning this site. It is released only as a copy of those records and is not intended to provide a full, complete or totally accurate assessment of the site. As a result, Environment Canterbury is not in a position to warrant that the information is complete or without error and accepts no liability for any inaccuracy in, or omission from, this information.*

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# Statement from the Listed Land Use Register

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Customer services: 03 353 9007

or: 0800 EC INFO (0800 324 636)

Website: [www.ecan.govt.nz](http://www.ecan.govt.nz)

**Date:**

7 December 2010

**Land Parcels:**

|                     |                             |
|---------------------|-----------------------------|
| • Lot 10 DP 71316   | Valuation No(s): 2405539307 |
| • Pt Lot 1 DP 75811 | Valuation No(s): 2405539099 |
| • Lot 9 DP 71316    | Valuation No(s): 2405539311 |
| • Lot 8 DP 71316    | Valuation No(s): 2405539315 |
| • Lot 1 DP 361539   | Valuation No(s): 2405539331 |
| • Lot 2 DP 361539   | Valuation No(s): 2405539332 |
| • Lot 3 DP 361539   | Valuation No(s): 2405539333 |
| • Lot 4 DP 361539   | Valuation No(s): 2405539334 |
| • Lot 5 DP 361539   | Valuation No(s): 2405539335 |
| • Lot 6 DP 361539   | Valuation No(s): 2405539336 |
| • Lot 7 DP 361539   | Valuation No(s): 2405539337 |
| • Lot 8 DP 361539   | Valuation No(s): 2405539338 |
| • Lot 9 DP 361539   | Valuation No(s): 2405539339 |
| • Lot 10 DP 361539  | Valuation No(s): 2405539340 |
| • Lot 11 DP 361539  | Valuation No(s): 2405539341 |
| • Lot 12 DP 361539  | Valuation No(s): 2405539342 |
| • Lot 13 DP 361539  | Valuation No(s): 2405539343 |
| • Lot 14 DP 361539  | Valuation No(s): 2405539344 |
| • Lot 500 DP 425548 | Valuation No(s): 2405539099 |



**Summary of sites:**

|                                                         |
|---------------------------------------------------------|
| There are no sites associated with the area of enquiry. |
|---------------------------------------------------------|

Please note that the above table represents a summary of sites intersecting the area of enquiry only.

**For further information from Environment Canterbury, contact the Contaminated Sites Officer and refer to enquiry number 6538.**

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Customer services: 03 353 9007

or: 0800 EC INFO (0800 324 636)

Website: [www.ecan.govt.nz](http://www.ecan.govt.nz)

**Date:**

7 December 2010

**Land Parcels:**

|                   |                                                                        |
|-------------------|------------------------------------------------------------------------|
| • RS 9522         | Valuation No(s):<br>2405526000,2405526000A,2405526000B,<br>2405526000C |
| • RS 15710        | Valuation No(s):<br>2405526000,2405526000A,2405526000B,<br>2405526000C |
| • RS 12514        | Valuation No(s):<br>2405526000,2405526000A,2405526000B,<br>2405526000C |
| • Lot 1 DP 8833   | Valuation No(s):<br>2405526000,2405526000A,2405526000B,<br>2405526000C |
| • RS 19792        | Valuation No(s):<br>2405526000,2405526000A,2405526000B,<br>2405526000C |
| • RS 23251        | Valuation No(s):<br>2405526000,2405526000A,2405526000B,<br>2405526000C |
| • Lot 1 DP 372247 | Valuation No(s): 2405526001                                            |
| • Lot 2 DP 372247 | Valuation No(s): 2405526002                                            |
| • Lot 3 DP 372247 | Valuation No(s): 2405526003                                            |
| • Lot 4 DP 372247 | Valuation No(s): 2405526004                                            |





## Summary of sites:

| Site ID | Site Name                | Location                 | HAIL Activity(s)                                                    | Category        |
|---------|--------------------------|--------------------------|---------------------------------------------------------------------|-----------------|
| 5516    | 54 Dynes Road, Rolleston | 54 Dynes Road, Rolleston | Storage tanks and drum storage for fuel, chemicals and liquid waste | Unverified HAIL |

Please note that the above table represents a summary of sites intersecting the area of enquiry only.

## Information held about the sites on the Listed Land Use Register

### Site 5516: 54 Dynes Road, Rolleston (Intersects referenced land.)

|                    |                          |
|--------------------|--------------------------|
| Site Address:      | 54 Dynes Road, Rolleston |
| Legal Description: | RS 9522                  |

|                |                                                              |
|----------------|--------------------------------------------------------------|
| Site Category: | Unverified HAIL                                              |
| Definition:    | The relevant land-use / HAIL history has not been confirmed. |

| Land uses (from HAIL): | Period From | Period To | HAIL land use                                                       |
|------------------------|-------------|-----------|---------------------------------------------------------------------|
|                        | ?           | 2005      | Storage tanks and drum storage for fuel, chemicals and liquid waste |

## Notes

18 Oct 2010

An underground fuel storage tank. Removed from the site in circa 2005, the tank continued to be used as an above ground storage tank at a neighbouring property. A soil sample collected from the fill point of the former underground storage tank location by Tonkin & Taylor in 2010 yielded acceptable concentrations of total petroleum hydrocarbons and BTEX compounds.

## Investigations

1 Apr 2010 INV 5125: 54 Dynes Road, Rolleston - Desk-based Ground Contamination Investigation with Limited Confirmatory Sampling  
Tonkin and Taylor Ltd

### Summary of investigation(s)

Tonkin & Taylor were engaged by Selwyn District Council to undertake a preliminary site investigation and a limited intrusive soil sampling investigation at a 33.3 ha block of land at 54 Dynes Road, Rolleston, presently described as RS 23251, RS 9522 and RS 19792. According to the report, Selwyn District Council was considering purchase of the properties comprising the study area for the purpose of constructing a recreational facility (including sporting fields).

The study area was in use for rural residential and general agricultural purposes at the time of the investigation. Research undertaken as part of the preliminary site investigation included a review of historical certificates of title (1883-2007), historical aerial photographs (1942-2010) and regional and district council files, an interview with the property's owner for the last 35 years, and a site inspection.

The desktop review reported that the study area was historically used for sheep farming and cropping purposes. There were no sheep dips within the study area. The potential for significant residual contamination associated with the past agricultural use was therefore assessed as low. However, the historical use of persistent pesticides may have resulted in surface soil impact, particularly within plots previously used for vegetable gardening. A gravel extraction pit (600 square metres, 4 m deep) was observed on the eastern corner of the study area. A 100 cubic metre soil stockpile – reportedly sourced from a residential subdivision in Rolleston – was observed adjacent to the gravel pit. Two residential dwellings were identified at the site.

An underground fuel storage tank formerly existed within the study area. The tank was removed roughly 5 years prior to the investigation (i.e. 2005) and was still in use as an above ground storage tank at the neighbouring property. A Tonkin & Taylor report identifies the tank location, but the tank's capacity is unknown. Validation samples had not been collected at the time of the removal. Because storage of hazardous chemicals in tanks is a HAIL activity, the former tank location has been entered on the Listed Land Use Register (LLUR) as **Site 5516**.

In April 2010 a limited intrusive soil investigation was conducted to confirm that the historical use of the site for agricultural purposes has not resulted in significant soil contamination. The sampling pattern was designed to assess the presence of residual soil contamination from the general agricultural use, historical gardening, and the imported soil stockpile. While a single surface sample was collected at the fill point of the former underground storage tank, samples were not collected to characterise sub-surface soil at the former underground petroleum storage tank location. Furthermore, sampling was not undertaken in the vicinity of dwellings to determine presence, or otherwise, of lead impact.

Surficial (0.0-0.1 m) and deeper (0.2-0.5 m) soil were collected from 16 locations. A single discrete sample was collected from the imported soil stockpile, located adjacent to the gravel extraction pit. Only the surface samples were submitted for analysis. Based on the sampling location, the analysis was scheduled for heavy metals (arsenic, cadmium, chromium, copper, lead, nickel, and zinc), organochlorine pesticide, total petroleum hydrocarbons, BTEX compounds, and polycyclic aromatic hydrocarbons.

All sample results were compliant with the guideline criteria protective of residential, recreational and industrial/commercial land use. Soil cadmium, lead and zinc concentrations at a number of sampling locations were above the likely background levels (ECan, 2006). Petroleum hydrocarbons in the C15-C36 carbon band were detected marginally above the laboratory limits in the sample collected near the old underground storage tank location, recording a concentration of 32 mg/kg. Polycyclic aromatic hydrocarbon compounds were not recorded above the laboratory limits of detection in the sample collected from stockpiled soils.

Based on the information provided in the report, it is proposed to register LLUR Site 5516 as 'Partially Investigated'. Based on the observations (i.e. continuing use of the former underground storage tank as an above ground storage tank at an adjacent property), and the analytical results of a single sample collected at the former tank fill point, the likelihood of significant soil contamination at the former tank location is low.

No analytical analysis was undertaken to confirm the presence, or otherwise, of lead-based paint on the old dwelling located within the study area.

**For further information from Environment Canterbury, contact the Contaminated Sites Officer and refer to enquiry number 6539.**

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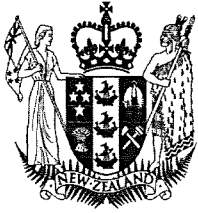
*This information reflects Environment Canterbury's current understanding of this site, which is based only on the information thus far obtained by it and held on record concerning this site. It is released only as a copy of those records and is not intended to provide a full, complete or totally accurate assessment of the site. As a result, Environment Canterbury is not in a position to warrant that the information is complete or without error and accepts no liability for any inaccuracy in, or omission from, this information.*

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**Appendix D:**

**Selected certificates of title: Site 2**





# COMPUTER FREEHOLD REGISTER UNDER LAND TRANSFER ACT 1952



## Historical Search Copy

  
R. W. Muir  
Registrar-General  
of Land

**Identifier** 355094  
**Land Registration District** Canterbury  
**Date Issued** 25 February 2008

### Prior References

CB38B/344

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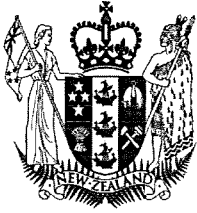
|                          |                               |
|--------------------------|-------------------------------|
| <b>Estate</b>            | Fee Simple                    |
| <b>Area</b>              | 28.0803 hectares more or less |
| <b>Legal Description</b> | Lot 1 Deposited Plan 388824   |

**Original Proprietors**  
Broadfield Estates Limited

---

### Interests

6201940.2 Mortgage to Mascot Finance Limited - 3.11.2004 at 9:00 am  
6201940.3 Mortgage to Lincoln Grange Orchards Limited - 3.11.2004 at 9:00 am  
6232622.1 Mortgage Priority Instrument making Mortgages 6201940.3 and 6201940.2 first and second mortgages respectively - 30.11.2004 at 9:00 am  
6760438.1 Mortgage to Adrienne Marina Shadbolt, Trevor Edward Luke, Broadfield Estates Limited and David Bruce Shadbolt - 21.2.2006 at 9:00 am  
7814209.1 Discharge of Mortgage 6201940.2 - 15.5.2008 at 9:23 am  
7814209.2 Mortgage to Canterbury Finance Limited - 15.5.2008 at 9:23 am  
7818497.1 Mortgage Priority Instrument making Mortgages 6201940.3, 7814209.2 and 6760438.1 first, second and third mortgages respectively - 16.5.2008 at 9:00 am



# COMPUTER FREEHOLD REGISTER UNDER LAND TRANSFER ACT 1952



Historical Search Copy

  
R.W. Muir  
Registrar-General  
of Land

**Identifier** CB38B/344  
**Land Registration District** Canterbury  
**Date Issued** 17 February 1994

**Cancelled**

**Prior References**  
CB28B/1254

---

|                             |                                |
|-----------------------------|--------------------------------|
| <b>Estate</b>               | Fee Simple                     |
| <b>Area</b>                 | 27.0127 hectares more or less  |
| <b>Legal Description</b>    | Part Lot 2 Deposited Plan 1401 |
| <b>Original Proprietors</b> |                                |
| Lincoln Grange Limited      |                                |

---

**Interests**

5018683.1 Transfer to Lincoln Grange Orchards Limited - 15.1.2001 at 11:36 am  
6201940.1 Transfer to Broadfield Estates Limited - 3.11.2004 at 9:00 am  
6201940.2 Mortgage to Mascot Finance Limited - 3.11.2004 at 9:00 am  
6201940.3 Mortgage to Lincoln Grange Orchards Limited - 3.11.2004 at 9:00 am  
6232622.1 Mortgage Priority Instrument making Mortgages 6201940.3 and 6201940.2 first and second mortgages respectively - 30.11.2004 at 9:00 am  
6760438.1 Mortgage to Adrienne Marina Shadbolt, Trevor Edward Luke, Broadfield Estates Limited and David Bruce Shadbolt - 21.2.2006 at 9:00 am  
7390584.1 Application under section 19 Land Transfer Act 1952 dry creek bed and dry lagoon bed - produced 28.5.2007 at 9:00 am and entered 25.2.2008 at 9:00 am  
7390584.1 CT 355094 issued for Lot 1 DP 388824 - produced 28.5.2007 at 9:00 am and entered 25.2.2008 at 9:00 am  
CANCELLED

References

Prior C/T 28B/1254

Transfer No.

N/C. Order No. DL A92041/1 - 20.1.1994



Land and Deeds 69

REGISTER

No. 38B/344

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT

This Certificate dated the 17th day of February one thousand nine hundred and ninety four under the seal of the District Land Registrar of the Land Registration District of CANTERBURY

WITNESSETH that LINCOLN GRANGE LIMITED at Christchurch ---

is seized of an estate in fee-simple (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon) in the land hereinafter described, delineated with bold black lines on the plan hereon, be the several admeasurements a little more or less, that is to say: All that parcel of land containing 27.0127 hectares or thereabouts being part Lot 2 Deposited Plan 1401 ---

Ellesmere County

ASSISTANT LAND REGISTRAR

Subject to:

Mortgage 501051/1 to The Rural Banking and Finance Corporation - 9.8.1984 at 11.53am

Mortgage 668852/1 to The Rural Banking and Finance Corporation of New Zealand - 9.3.1987 at 11.13am

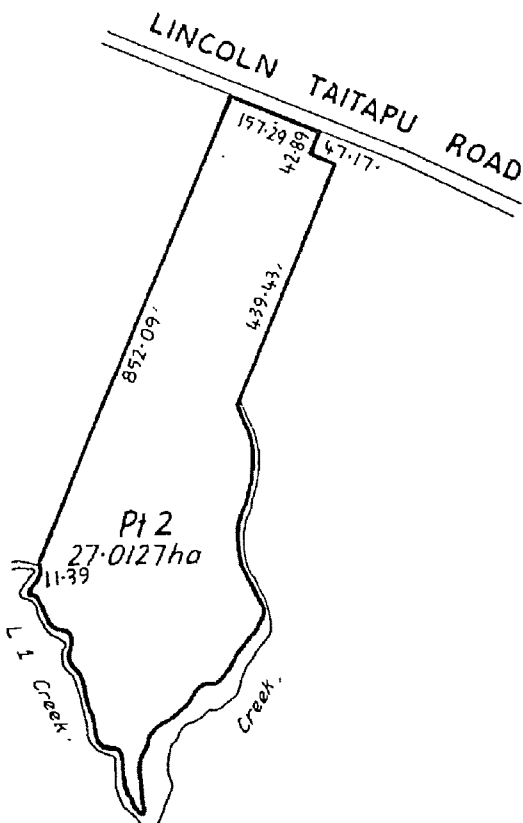
Mortgage 672188/1 to The Rural Banking Corporation - 26.3.1987 at 11.07am

A.L.R.

The discharge memorial has not been endorsed on the outstanding duplicate of Mortgage 501051/1 production of the same having been dispensed with in terms of Section 111 Land Transfer Act 1952 \* and 668852/1

Mortgage A99149/4 to The Bank of New Zealand Limited - 1.3.1994 at 11.28am

for A.L.R.



Measurements are Metric

No. 38B/344





References

Prior C/T 3A/296

Transfer No.

N/C. Order No. 594270/1

CANCELLED

CANCELLED

Land and Deeds 69



REGISTER

No. 28B/1254

CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT

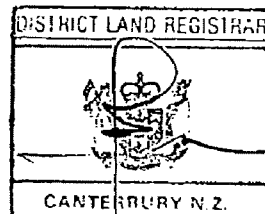
This Certificate dated the 24th day of March one thousand nine hundred and eighty six under the seal of the District Land Registrar of the Land Registration District of CANTERBURY

WITNESSETH that LINCOLN GRANGE LIMITED at Christchurch ---

is seised of an estate in fee-simple (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon) in the land hereinafter described, delineated with bold black lines on the plan hereon, be the several admeasurements a little more or less, that is to say: All that parcel of land containing 27.0127

hectares or thereabouts being part Lot 2 Deposited Plan 1401 ---

Ellesmere County.



Assistant Land Registrar

Subject to:

Mortgage 501051/1 to The Rural Banking and Finance Corporation - 3.8.1984 at 11.53a.m.

A.L.R.

Mortgage 668852/1 to The Rural Banking and Finance Corporation of New Zealand - 9.3.1987 at 11.12a.m.

for A.L.R.

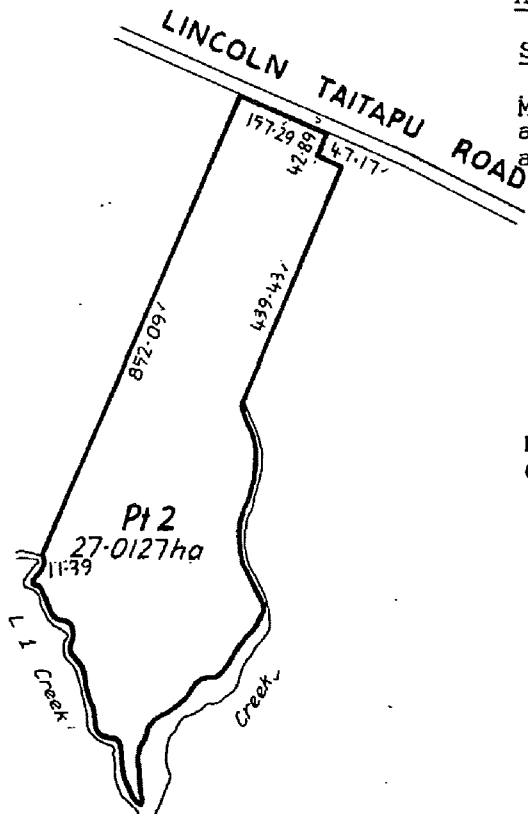
Mortgage 672188/1 to Westpac Banking Corporation - 26.3.1987 at 11.37a.m.

for A.L.R.

No. A92041/1 the outstanding duplicate hereof having been declared lost this Certificate of Title is hereby cancelled and a new Certificate of Title 388/344 issued herefor Produced 20.1.1994 and entered 17.2.1994 at 9.00am

A.L.R.

CANCELLED



Measurements are Metric

No. 28B/1254

Reference:  
Prior C/T. 180/79

Transfer No.  
N/C. Order No. 601001



CANCELLED

Land and Deeds 69

REGISTER

No.

3A/296

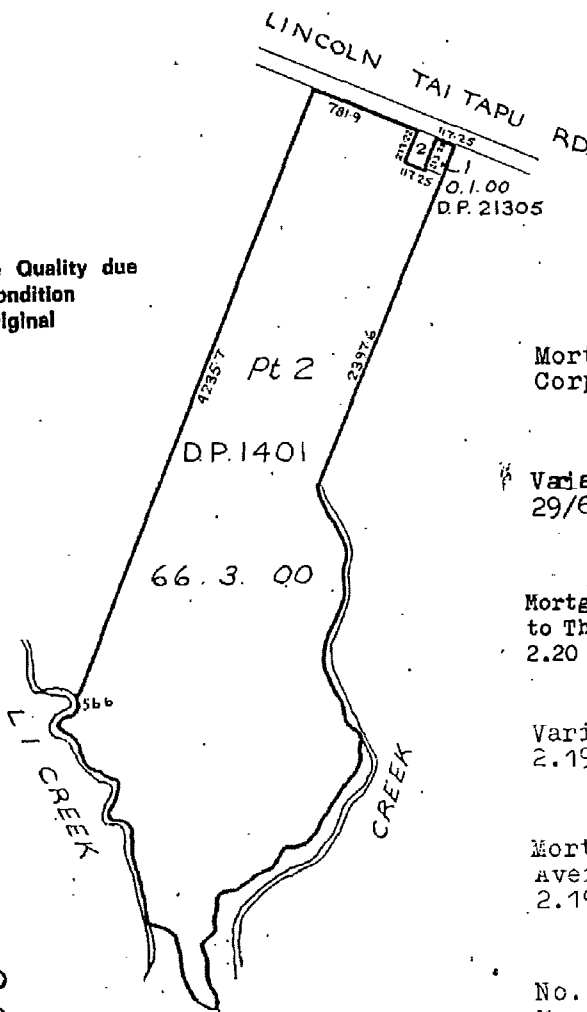
## CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT

This Certificate dated the 23rd day of May one thousand nine hundred and sixty-three under the seal of the District Land Registrar of the Land Registration District of Canterbury

WITNESSETH that CHARLES EVELYN WATKINS of Lincoln Farmer

is seized of an estate in fee-simple (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon) in the land hereinafter described, delineated with bold black lines on the plan hereon, be the several admeasurements a little more or less, that is to say: All that parcel of land containing 67 acres or thereabouts situated in Block V of the Halswell Survey District being Lot 1 on Deposited Plan No.21305 and part Lot 2 on Deposited Plan No.1401 Rural Section 2774 and part Rural Sections 1548 and 1880

Image Quality due  
to Condition  
of Original



METRIC AREA:-27.1139ha

7.0.0

10 chains.



Assistant Land Registrar

Mortgage 489964 to Sydney Wingate  
Weston - 28.10.1958 at 12 noon

A.L.R.

Mortgage 823739 to The State Advances Corporation - 29/6/1972 at 11.45 a.m.

A.L.R.

Variation of Mortgage 489964  
29/6/1972 at 11 a.m.

A.L.R.

Mortgage 927335 varied the terms of Mortgage 823739  
to The State Advances Corporation - 11.9.1973 at  
2.20 p.m.

A.L.R.

Variation of Mortgage 927335 - 15.10.1976 at  
2.19 p.m.

A.L.R.

Mortgage 102114/4 to Donaldson, Wylie and  
Averill Nominees - 15.10.1976 at  
2.19 p.m.

A.L.R.

No. 102114/5 Memorandum of Priority making  
Mortgage 102114/4 first mortgage, Mortgage  
823739 second mortgage and Mortgage 927335  
third mortgage - 15.10.1976 at 2.19 p.m.

- OVER -

Register copy for L. & D. 69/71, 72  
30/10/12/61-4818 W

No. 3A/296

Transmission 260315/1 to Phillip Robert Thorpe Taylor of Christchurch, Solicitor and Kenneth James Jensen of Christchurch, Chartered Accountant as Executors - 29.1.1980 at 10.48 am.

for A.L.R.

Transfer 260315/3 to Ian Charles Watkins and John Oswald Watkins both of Lincoln, Farmers as tenants in common in equal shares - 29.1.1980 at 10.48 am.

for A.L.R.

Variation of Mortgage 927335 - 29.1.1980 at 10.49 am.

for A.L.R.

Mortgage 260315/5 to ~~Wyllie and Averill Nominees Limited~~ *Wyllie and Averill* 29.1.1980 at 10.49 am.

for A.L.R.

Variation of Mortgage 102114/4 - 29.1.1980 at 10.49 am.

for A.L.R.

No. 290642/1 Change of Name of the Mortgages under Mortgage 102114/4 to Ronaldson Averill Solicitors Nominee Company Limited 5/9/1980 at 9.21 a.m.

D.L.R.

Variation of Mortgage 927335 - 29.9.1981 at 1.48 p.m.

Mortgage 347395/2 to ~~Wyllie and Averill~~ *Wyllie and Averill* New Zealand - 29.9.1981 at 1.48 p.m.

for A.L.R.

Transfer 456569/1 of Mortgage 102114/4 to Lane Neave Ronaldson Solicitors Nominee Company Limited - 7.10.1983 at 10.51 a.m.

A.L.R.

Certificate No. 472856/2 that the within Mortgage No. 623739, 927355 is vested in the Rural Banking and Finance Corporation of New Zealand 3/2/1984 at 9.39.

A.L.R.

Transfer 487784/1 of Mortgage 260315/5 to Lane Neave Ronaldson Solicitors Nominee Company Limited - 14.5.1984 at 11.20 a.m.

for A.L.R.

Transfer 491165/1 to Lincoln Grange Limited at Christchurch - 1.6.1984 at 11.15 am.

for A.L.R.

Mortgage 501051/1 to The Rural Banking and Finance Corporation - 3.8.1984 at 11.53 a.m.

for A.L.R.

OCT594270/1 - Cancelled and Cst. 24.3.1986 28B/1253,1254 issued for Lot 1 DP 21305 and part Lot 2 DP 1401

A.L.R.

CANCELLED DUPLICATE DESTROYED



## **Appendix E:**

## **ECan LLUR listing Site 2**

Attn: Jared Pettersson  
Tonkin and Taylor  
PO Box 13055  
Christchurch

58 Kilmore Street  
PO Box 345  
Christchurch 8140  
P. 03 365 3828  
F. 03 365 3194  
E. [ecinfo@ecan.govt.nz](mailto:ecinfo@ecan.govt.nz)  
Customer Services  
P. 03 353 9007 or 0800 324 636  
[www.ecan.govt.nz](http://www.ecan.govt.nz)

Dear Jared

Thank you for submitting your property enquiry for land within the Lincoln area. I have searched our Listed Land Use Register (LLUR) which holds information about sites that have been used, or are currently used for activities which have the potential to have caused contamination.

**There are two LLUR sites located on the land parcels you enquired about, and there is one site located within 100 m that may be of interest to you.** Environmental investigations have also been conducted on some of this land and reports have been supplied to Environment Canterbury. Staff at Environment Canterbury have reviewed the reports and determined that the land has not been used for any activities listed on the Hazardous Activities and Industries List and therefore the land has not been listed as a site on the LLUR.

The enclosed LLUR statements indicate the location of the sites and investigations relative to the land you enquired about, and detail the information we currently hold on the register. This information is to be used by Tonkin and Taylor in accordance with the enclosed Memorandum of Understanding.

The LLUR does not contain all the information held by Environment Canterbury about a property, and other information relevant to potential contamination may be held in other files (for example consent and enforcement files).

If your enquiry relates to a farm property, please be aware that many current and past activities undertaken on farms (such as the storage, formulation and disposal of pesticides, offal pits, foot rot troughs, animal dips and underground or above ground fuel tanks) have the potential to cause contamination and these may not be listed on the LLUR.

Please contact me if you wish to discuss the contents of this letter, or if you require additional information.

Yours faithfully



Nick Griffiths  
**Contaminated Sites Officer**

Encl:

Statements from Environment Canterbury's Listed Land Use Register



# Statement from the Listed Land Use Register

58 Kilmore Street, PO Box 345, Christchurch

General enquiries: 03 365 3828

Fax: 03 365 3194

Email: [ecinfo@ecan.govt.nz](mailto:ecinfo@ecan.govt.nz)

Customer services: 03 353 9007

or: 0800 EC INFO (0800 324 636)

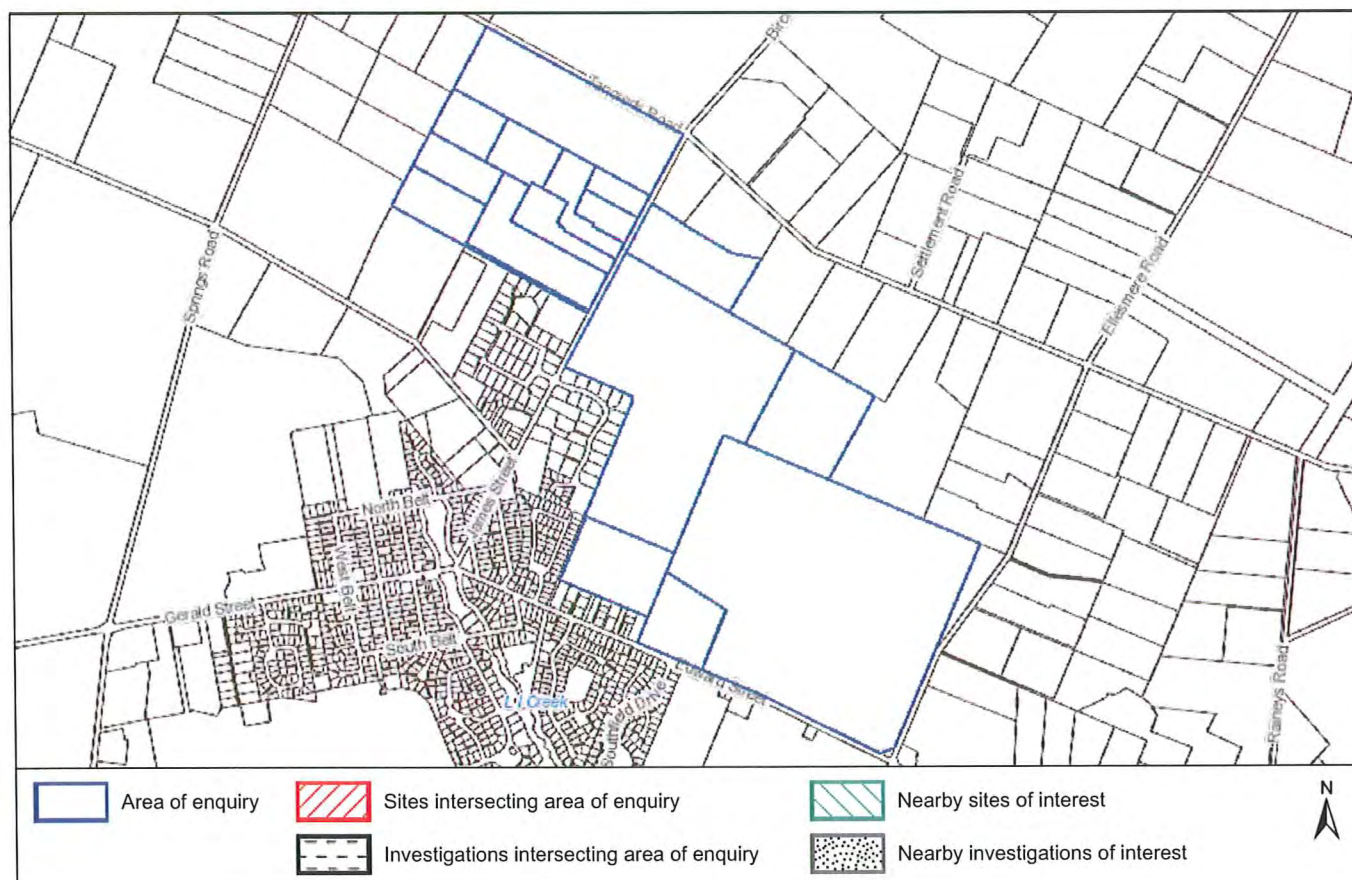
Website: [www.ecan.govt.nz](http://www.ecan.govt.nz)

**Date:**

8 December 2010

**Land Parcels:**

|                   |                             |
|-------------------|-----------------------------|
| • Lot 2 DP 56631  | Valuation No(s): 2356118800 |
| • Lot 2 DP 33959  | Valuation No(s): 2356120700 |
| • RS 1904         | Valuation No(s): 2356118701 |
| • Lot 2 DP 33700  | Valuation No(s): 2356119800 |
| • Lot 1 DP 56631  | Valuation No(s): 2356118801 |
| • Lot 5 DP 26021  | Valuation No(s): 2356119800 |
| • Lot 2 DP 65371  | Valuation No(s): 2356119900 |
| • Lot 1 DP 364266 | Valuation No(s): 2356120001 |
| • Lot 2 DP 364266 | Valuation No(s): 2356120000 |
| • Lot 1 DP 372809 | Valuation No(s): 2356118600 |
| • Lot 2 DP 372809 | Valuation No(s): 2356118602 |
| • Lot 4 DP 374083 | Valuation No(s): 2356118604 |
| • Lot 5 DP 374083 | Valuation No(s): 2356118605 |
| • Lot 6 DP 374083 | Valuation No(s): 2356118606 |
| • Lot 7 DP 374083 | Valuation No(s): 2356118607 |
| • Lot 8 DP 374083 | Valuation No(s): 2356118608 |



## Summary of sites:

There are no sites associated with the area of enquiry.

Please note that the above table represents a summary of sites intersecting the area of enquiry only.



For further information from Environment Canterbury, contact the Contaminated Sites Officer and refer to enquiry number 6547.

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# Statement from the Listed Land Use Register



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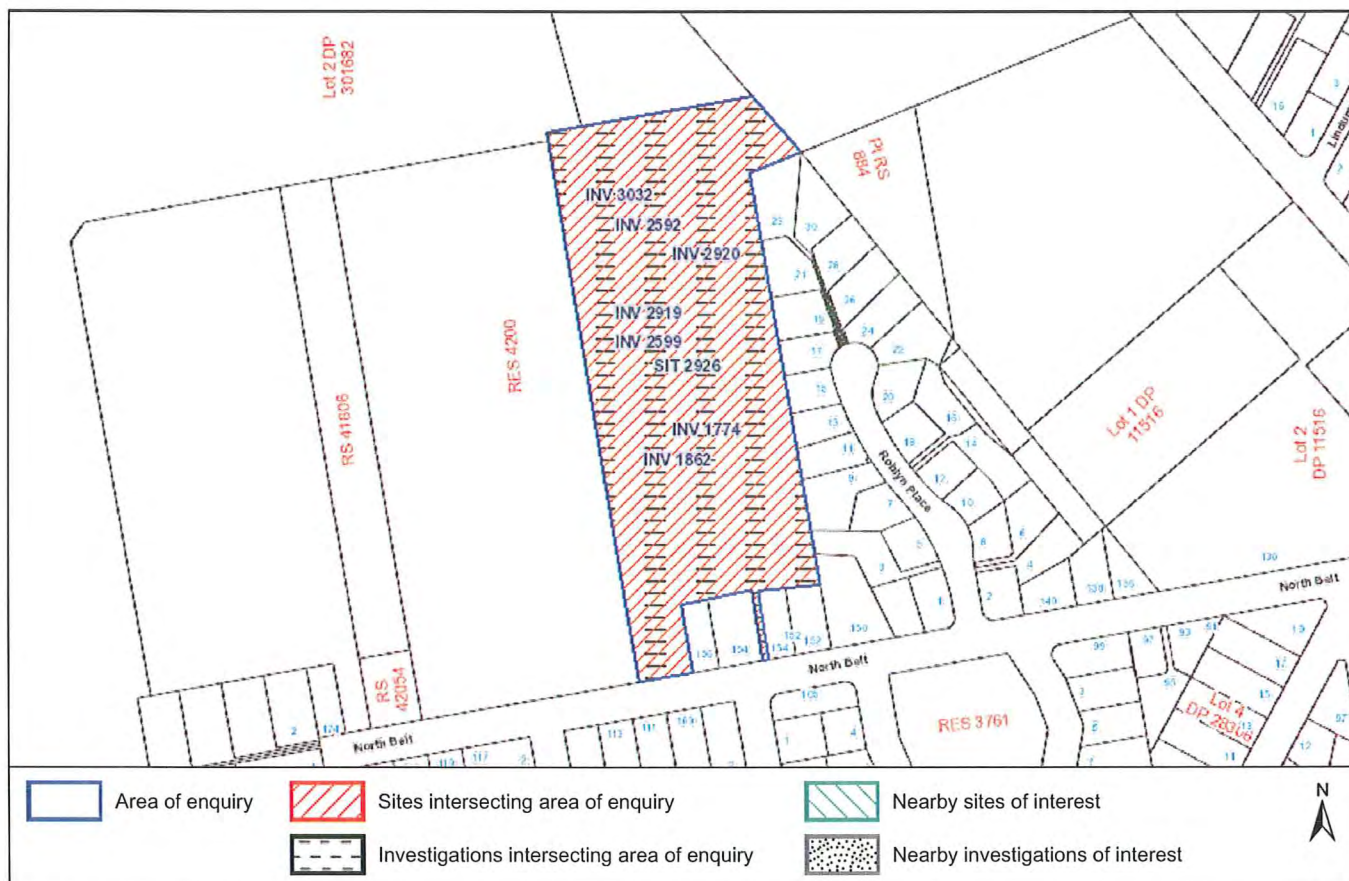
Date:

8 December 2010

Land Parcels:

• Lot 1 DP 301682

Valuation No(s): 2404000701



## Summary of sites:

| Site ID | Site Name                                   | Location              | HAIL Activity(s)                                                                                            | Category      |
|---------|---------------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------|---------------|
| 2926    | Former Crop and Food Research Institute Ltd | 0 North Belt, Lincoln | Storage tanks and drum storage for fuel, chemicals and liquid waste; Market gardens, orchards, glass houses | Verified HAIL |

Please note that the above table represents a summary of sites intersecting the area of enquiry only.

## Information held about the sites on the Listed Land Use Register

### Site 2926: Former Crop and Food Research Institute Ltd (Intersects referenced land.)

Site Address:

0 North Belt, Lincoln

Legal Description:

Lot 1 DP 301682

Site Category:

Verified HAIL

Definition:

The land-use / HAIL history has been confirmed.

**Land uses (from HAIL):**

| Period From | Period To | HAIL land use                                                                                                     |
|-------------|-----------|-------------------------------------------------------------------------------------------------------------------|
| 1950s       | 1999      | Storage tanks and drum storage for fuel, chemicals and liquid waste                                               |
| 1950s       | 2000      | Market gardens, orchards, glass houses or other areas where the use of persistent agricultural chemicals occurred |

**Notes**

**22 Sep 2005** A 5000 litre tank was present at the site. This tank was installed in the 1960s, and it was not used since approximately 1993. It was removed in 1999, with two soil samples taken from the tank pit. Samples were analysed for unbanded Total Petroleum Hydrocarbons (TPH). Sampling was carried out prior to release of the MfE (1999) Guideline for Assessing and Managing Petroleum Hydrocarbon Sites in New Zealand, and was not in accordance with the guideline.

However, sample concentrations of total TPHs were below the most conservative TPH band Tier 1 MfE(1999) soil acceptance value for Industrial/Commercial Use.

**11 Feb 2009** All of the current site investigation reports held on file for this property have been assessed and the category of 'Contaminated for Residential use' recommended for the site, due to one sample having a cadmium concentration exceeding guideline values, and another having arsenic and lead concentrations exceeding guideline values. These areas of the site (associated with the former glass house and the residence) require further investigation to determine the nature and extent of contamination.

The 2006 Tonkin and Taylor investigation included soil sampling in the paddock area of the site which has previously been used for horticultural activities. This area comprises approximately the northern 80% of the total site. It is considered that this portion of the site has been adequately characterised and has shown to be suitable for future residential use.

The south-western corner of the site was also adequately characterised by sampling conducted during the 2008 Tonkin and Taylor investigation, and this part of the site (approximately 5% of the total site area) is considered to be suitable for the proposed childcare centre/plunket rooms.

The paddock area of the site meets the criteria of 'At or below background concentrations' as all of the sample results were consistent with expected naturally occurring background levels.

The south-western corner of the site meets the criteria of 'Below guideline values residential land use' as this area was adequately characterised with regard to all known HAIL activities, and all sample results were within the relevant residential guideline values but with some above natural background levels.

These two areas are marked on the LLUR layer on the ECan GIS. Although the site has the overall classification of 'Contaminated for Residential use' it is considered that these two areas require no further investigation and have been adequately demonstrated to be suitable for their proposed uses.

**18 Sep 2009** A consent application has been lodged for discharge of stormwater from a proposed community centre and residential development (CRC100553). The area around the former boiler which was assessed as being contaminated for residential land use will now be located beneath a sealed car park for the community centre. Due to the change of land use to commercial/industrial, an assessment of the soil contaminant concentrations shows the land to be suitable for this proposed new land use. A small area of contaminated soil above residential guidelines remains around the dwelling on the south-east corner of the site. Remediation has been proposed for this part of the site and detailed in a Remediation Action Plan, which is held on the file. A Site Management Plan and a Construction Management Plan for the entire site is being prepared and will be submitted in response to a Section 92 request as part of the consent application.

**Investigations**

**28 Feb 2001** INV 1774: Tank Removal of only one diesel tank  
Petroleum Engineering Services Ltd

**2 Jun 2005** INV 1862: Assessment of Soil Contamination at Crop and Food Proving Ground, North Belt, Lincoln  
Golder Associates

**1 Oct 2006** INV 2599: Ground Contamination Investigation - Crop & Food Research Farms - North Belt  
Tonkin and Taylor Ltd

| Exceedences of environmental guideline values |             |                                  |       |             |
|-----------------------------------------------|-------------|----------------------------------|-------|-------------|
| Document                                      | Contaminant | Pathway                          | Media | Land Use    |
| UK DEFRA                                      | Cadmium     | All pathways                     | Soil  | Residential |
| Contaminated sites NEPM                       | Lead        |                                  | Soil  | Residential |
| NZ TTG                                        | Arsenic     | Adopted value, combined pathways | Soil  | Residential |

**1 Sep 2008** INV 2592: Ground Contamination Investigation - North Belt, Lincoln  
Tonkin and Taylor Ltd

**Summary of investigation(s)**

At the time of investigation by Golder Associates (May 2005), the 3.6 hectare site was unoccupied. Buildings and equipment associated with the former use as an agricultural research facility were still present. The site history indicates that the site was farmed and grazed until acquired by the Crown in 1948. The site was used as a research facility from the 1950s until about 2000. The site comprised: a dwelling and garage; a field laboratory; a glasshouse with associated boiler and 5,000L diesel UST (removed); a soil shed (possibly previously housing a boiler); and a number of distinct paddocks for crop testing. Key potential contaminating activities identified were application of pesticides and storage of fuel, lubricants



and other chemicals associated with site operation.

2001 - Petroleum Engineering Services Ltd.

The former diesel storage tank was removed in 1999 and two soil samples taken from the walls of the tank pit. No significant hydrocarbons were detected. No further information was available for the tank removal. Two soil samples does not meet the recommended minimum sampling requirement (MfE 1999), however no further work is considered necessary with regard to the former tank.

2005 - Golder Associates.

A total of seven composite samples were analysed (made up of between 4 and 8 sub-samples). Five of the samples were taken from the paddock areas, one sample from a soil dump and one sample from adjacent to a chemical store in the south of the site. Five samples were analysed for organochlorine pesticides (OCPs), five for heavy metals and one for organo-nitrogen and organo-phosphorous pesticides. All the results were below relevant residential guidelines.

The Golders report concluded that the site is suitable for the proposed residential site use in its current state. The investigation results do provide a good initial indication that only limited contamination is present on site from the historical activities. However, given the size of the site and the sensitive proposed end use, the scope of the investigation is not considered adequate and additional sampling is required to confirm conditions. No hydrocarbon sampling has been undertaken to confirm that no significant contamination remains from the former UST, associated pipework, the boiler(s) or the evident hydrocarbon usage at the soil shed in the north.

An asbestos survey of the site structures should be undertaken and any identified materials handled appropriately during demolition (the Golders report refers to asbestos cement sheeting on some buildings).

2006 - Tonkin and Taylor.

26 samples collected from the site. 22 samples analysed for metals and 12 for OCPs and ONOPs. A grid sampling pattern was used for the paddock area which was appropriate as any contamination was expected to be homogeneous (based on site history).

All of the samples collected from the paddock area of the site were found to have concentrations of OCPs and ONOPs that were within the relevant guideline values, and also below the level of laboratory detection for some compounds. Metals concentrations in the paddock samples were generally at or around background levels and all within guideline values. The relatively low and regular concentrations of contaminants detected in the samples from the paddock area of the site are consistent with its documented historic use, and the sampling is considered sufficient to demonstrate that this area is acceptable for the proposed residential land use.

Targeted sampling was used to assess for potential contamination hotspots associated with the buildings, glasshouse and residential dwelling area of the site. Exceedances of guideline values were recorded for Cadmium in one sample and Arsenic and Lead in another.

2008 - Tonkin and Taylor.

Further sampling conducted with the aim of further characterising the ground contamination and potential health effects in the location of the proposed childcare centre/plunket rooms (south-west corner of the site) and at the former residence (south east corner).

The sampling and analysis conducted in the south-west corner of the site was adequate to characterise this area. All sample results were within the relevant guideline values (but with some above background), and there had been no exceedances from samples collected in the previous investigations. It is considered that this portion of the site has been demonstrated to be appropriate for the proposed development.

20 samples were collected and analysed for metals and OCPs and all results found to be within the relevant guideline values. Further work is required at these areas of the site to delineate the extent of contamination identified in the initial T&T investigation.

**13 May 2009**    **INV 2920: Former Crop and Food site, Northbelt, Lincoln - additional sampling**  
Tonkin and Taylor Ltd

**13 May 2009**    **INV 3032: Additional Data Letter Report**  
Tonkin and Taylor Ltd

**1 Aug 2009**    **INV 2919: Remediation Action Plan - Former Crop and Food Site**  
Tonkin and Taylor Ltd

#### **Summary of investigation(s)**

Report(s) have not yet been audited.

For further information from Environment Canterbury, contact the Contaminated Sites Officer and refer to enquiry number 6548.

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# Statement from the Listed Land Use Register

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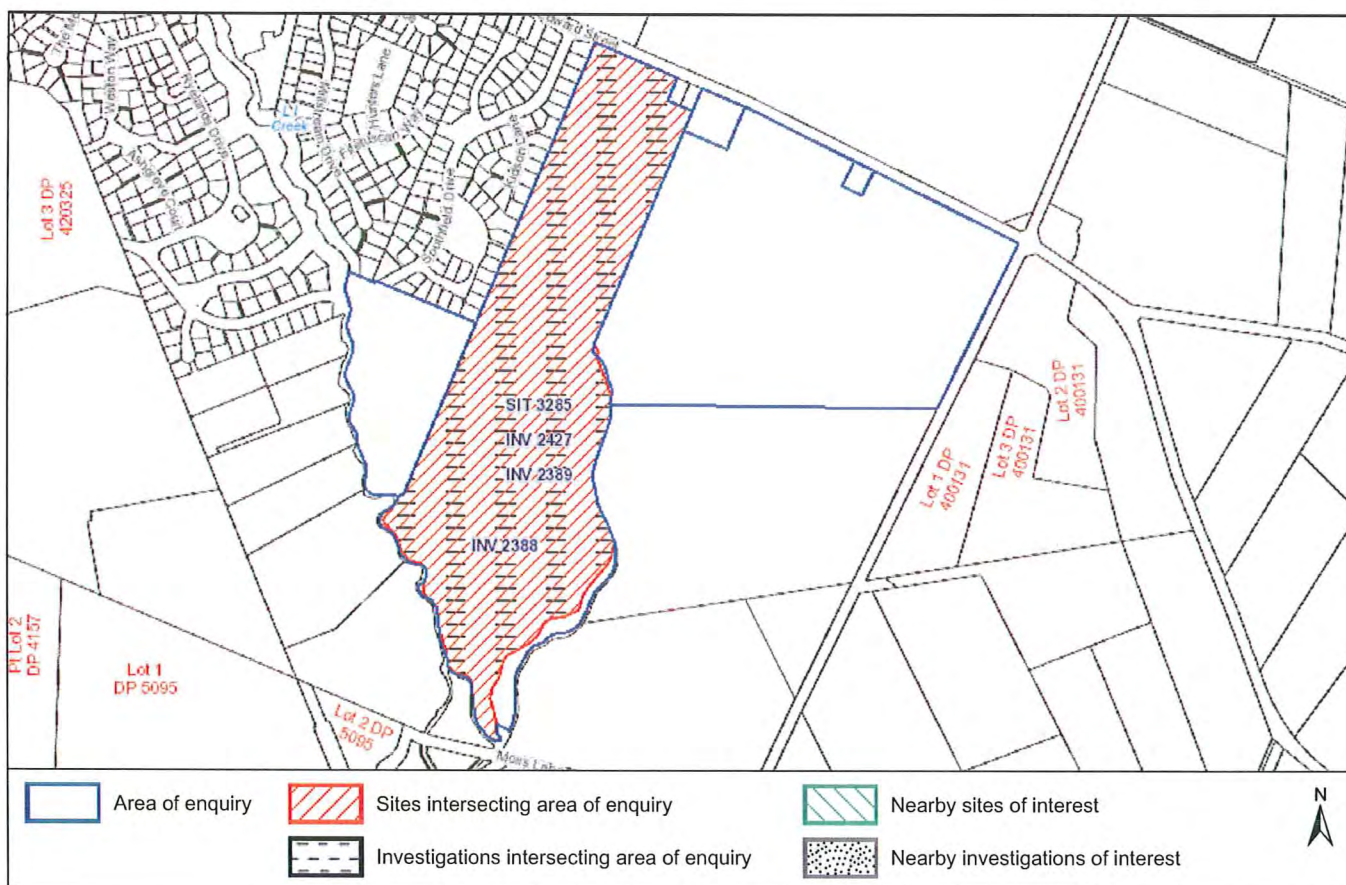
Website: [www.ecan.govt.nz](http://www.ecan.govt.nz)

**Date:**

8 December 2010

**Land Parcels:**

|                    |                             |
|--------------------|-----------------------------|
| • Pt Lot 1 DP 9172 | Valuation No(s): 2404002800 |
| • Lot 1 DP 16901   | Valuation No(s): 2404002701 |
| • Lot 1 DP 63828   | Valuation No(s): 2404002603 |
| • Lot 96 DP 354488 | Valuation No(s): 2404002500 |
| • Lot 1 DP 388824  | Valuation No(s): 2404002602 |



## Summary of sites:

| Site ID | Site Name                      | Location               | HAIL Activity(s)                       | Category                                     |
|---------|--------------------------------|------------------------|----------------------------------------|----------------------------------------------|
| 3285    | Former Lincoln Grange Orchards | Edward Street, Lincoln | Market gardens, orchards, glass houses | Below environmental guidelines (residential) |

Please note that the above table represents a summary of sites intersecting the area of enquiry only.

## Information held about the sites on the Listed Land Use Register

### Site 3285: Former Lincoln Grange Orchards (Intersects referenced land.)

**Site Address:**

Edward Street, Lincoln

**Legal Description:**

Lot 1 DP 388824



**Site Category:**

Below environmental guidelines (residential)

**Definition:**

Investigation results demonstrate that hazardous substances present at the site, but below applicable guidelines. - Residential

**Land uses (from HAIL):**

| Period From | Period To | HAIL land use                                                                                                     |
|-------------|-----------|-------------------------------------------------------------------------------------------------------------------|
| ?           | 2004      | Market gardens, orchards, glass houses or other areas where the use of persistent agricultural chemicals occurred |

**Notes****31 Jul 2008 Site History**

The site is known to have operated as a commercial orchard between the 1990s and 2006. It is thought that the site was used for agriculture/horticulture prior to the 1990s. Information obtained from Selwyn District Council indicates activity since at least the 1960s with consents for drainage/plumbing, erection of implement/packing sheds, a residential dwelling and a garage.

**Investigation Work**

Three phases of work have been undertaken. The first comprised a preliminary investigation of soils in June 2007. As a result of the elevated metal concentrations found in the first investigation, further assessment was required. A second investigation in areas of concern was therefore undertaken in September 2007. This revealed one further area of concern and a third phase of investigation was undertaken in December 2007, targeting a specific area of lead contamination.

**Sampling Methodology**

A mixture of composite and discrete sampling was undertaken during the first investigation. The methodology was used correctly, although for the composite samples, the use of five sub-samples meant that the adjusted guideline values were overly conservative. Several samples exceeded the adjusted guideline values. Discrete samples were used in the subsequent investigations. No duplicate or QA/QC samples were taken during any of the three investigations.

**Laboratory Analysis**

During the first investigation, samples were tested for a suite of metals, hydrocarbons and pesticides. This suite of analytes appropriately addressed all potential contaminants associated with the identified on-site HAIL activities. The analyte list was then reduced to arsenic, copper and lead during the second investigation, with the third investigation solely focusing on lead.

**Evaluation of Results**

The initial investigation report identified a number of samples with elevated metal concentrations which required further assessment. However 9 of the 11 samples detailed as impacted were associated with levels of copper in soil in excess of the MfE "protection of plant life" guidance value found in the MfE Treated Timber guidance document (1997), and therefore had no bearing on protection of human health. The second investigation concentrated on the broad areas of lead, arsenic and copper (over protectively in terms of human health) contamination associated with composite sampling conducted in the first investigation. Results of analysis for arsenic in this investigation indicated that the composite samples collected during the first investigation reflected average concentration for the site, and were well below applicable human health risk-based guidelines. Further investigation of the "elevated" copper from discrete sampling in the area of a chemical mixing facility was not undertaken. The second report concluded that reworking and homogenising the affected area with clean soil would dilute the concentrations and that they would then fall below guideline values. Since the results for these samples were very close to the "protection of plant life" guidance value this is likely. However reworking of the area is not necessary since all copper values were below the applicable human health risk-based guidance values for residential land use. The second report indicated the presence of a single lead hot spot which required delineation. The third report found no evidence of elevated lead concentrations. The initial elevated lead in soil concentration is considered to be an anomalous isolated hot spot.

**Further Work**

No further work is required.

**Investigations****1 Jun 2007 INV 2388: Preliminary Contamination Assessment, 86A Edwards Street, Lincoln, Canterbury**  
Golder Associates

| Exceedences of environmental guideline values |             |         |       |                       |
|-----------------------------------------------|-------------|---------|-------|-----------------------|
| Document                                      | Contaminant | Pathway | Media | Land Use              |
| Contaminated sites NEPM                       | Lead        |         | Soil  | Parkland/Recreational |

**20 Sep 2007 INV 2389: 86A Edward Street, Lincoln: Additional Contamination Assessment**  
Golder Associates

| Exceedences of environmental guideline values |             |         |       |             |
|-----------------------------------------------|-------------|---------|-------|-------------|
| Document                                      | Contaminant | Pathway | Media | Land Use    |
| Contaminated sites NEPM                       | Lead        |         | Soil  | Residential |

**1 Dec 2007 INV 2427: 86A Edward Street, Lincoln: Lead Delineation Investigation**  
Golder Associates**Summary of investigation(s)**

The site is known to have operated as a commercial orchard between the 1990s and 2006. It is thought that the site was used for agriculture/horticulture prior to the 1990s. Information obtained from Selwyn District Council indicates activity since at least the 1960s with consents for drainage/plumbing, erection of implement/packing sheds, a residential dwelling and a garage.

Three phases of work have been undertaken. The first comprised a preliminary investigation of soils in June 2007. As a result of the elevated metal concentrations found in the first investigation, further assessment was required. A second investigation in areas of concern was therefore undertaken in September 2007. This revealed one further area of concern and a third phase of investigation was undertaken in December 2007, targeting a specific area of lead contamination.

A mixture of composite and discrete sampling was undertaken during the first investigation. The methodology was used correctly, although for the composite samples, the use of five sub-samples meant that the adjusted guideline values were overly conservative. Several samples exceeded the adjusted guideline values. Discrete samples were used in the subsequent investigations. No duplicate or QA/QC samples were taken during any of the three investigations.

During the first investigation, samples were tested for a suite of metals, hydrocarbons and pesticides. This suite of analytes appropriately addressed all potential contaminants associated with the identified on-site HAIL activities. The analyte list was then reduced to arsenic, copper and lead during the second investigation, with the third investigation solely focusing on lead.

The initial investigation report identified a number of samples with elevated metal concentrations which required further assessment. However 9 of the 11 samples detailed as impacted were associated with levels of copper in soil in excess of the MfE "protection of plant life" guidance value found in the MfE Treated Timber guidance document (1997), and therefore had no bearing on protection of human health. The second investigation concentrated on the broad areas of lead, arsenic and copper (over protectively in terms of human health) contamination associated with composite sampling conducted in the first investigation. Results of analysis for arsenic in this investigation indicated that the composite samples collected during the first investigation reflected average concentration for the site, and were well below applicable human health risk-based guidelines. Further investigation of the "elevated" copper from discrete sampling in the area of a chemical mixing facility was not undertaken. The second report concluded that reworking and homogenising the affected area with clean soil would dilute the concentrations and that they would then fall below guideline values. Since the results for these samples were very close to the "protection of plant life" guidance value this is likely. However reworking of the area is not necessary since all copper values were below the applicable human health risk-based guidance values for residential land use. The second report indicated the presence of a single lead hot spot which required delineation. The third report found no evidence of elevated lead concentrations. The initial elevated lead in soil concentration is considered to be an anomalous isolated hot spot.

No further work is required.

**For further information from Environment Canterbury, contact the Contaminated Sites Officer and refer to enquiry number 6553.**

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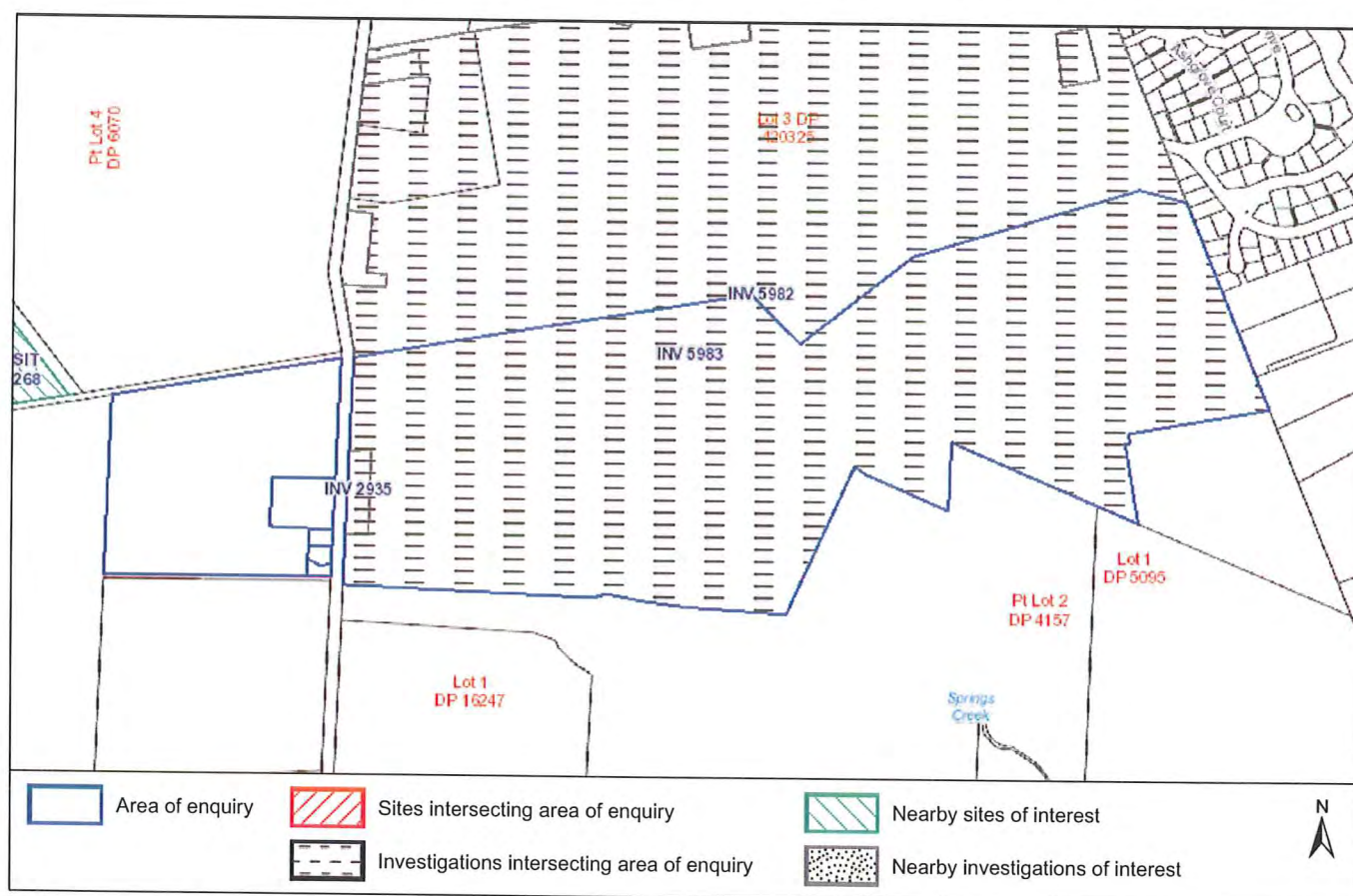
Website: [www.ecan.govt.nz](http://www.ecan.govt.nz)

**Date:**

8 December 2010

**Land Parcels:**

|                   |                                        |
|-------------------|----------------------------------------|
| • Lot 1 DP 54824  | Valuation No(s): 2405243800,2405243801 |
| • Lot 1 DP 26815  | Valuation No(s): 2405244100            |
| • Lot 2 DP 22861  | Valuation No(s): 2405244200            |
| • Lot 2 DP 26815  | Valuation No(s): 2405244000            |
| • Lot 2 DP 54824  | Valuation No(s): 2405243800            |
| • Lot 6 DP 374333 | Valuation No(s): 2404000107            |



## Summary of sites:

| Site ID | Site Name                   | Location                              | HAIL Activity(s) | Category        |
|---------|-----------------------------|---------------------------------------|------------------|-----------------|
| 268     | Lincoln University Landfill | Sth end of Weedons Ross Road, Lincoln | Landfill sites   | Unverified HAIL |



## Information held about the sites on the Listed Land Use Register

### Site 268: Lincoln University Landfill (Within 100m of referenced land.)

|                    |                                       |
|--------------------|---------------------------------------|
| Site Address:      | Sth end of Weedons Ross Road, Lincoln |
| Legal Description: | RS 4947                               |

|                |                                                              |
|----------------|--------------------------------------------------------------|
| Site Category: | Unverified HAIL                                              |
| Definition:    | The relevant land-use / HAIL history has not been confirmed. |

|                        |             |           |                |
|------------------------|-------------|-----------|----------------|
| Land uses (from HAIL): | Period From | Period To | HAIL land use  |
|                        | ?           | ?         | Landfill sites |

### Notes

- 19 Mar 2007** Lincoln University operated landfill located at the south end of Weddons Road. Approx. 200 squared metres in area. Domestic and university waste disposed at the fill. Information supplied by Selwyn District Council.
- 1 Oct 2009** A passive discharge consent (CRC090606) has been applied for and is on hold awaiting further information. The site will be registered under an appropriate category once the consenting process has been completed.
- 8 Dec 2010** The consent for discharge of leachate from this site is still on hold awaiting further information. An investigation was conducted by CPG in April 2010 which involved the excavation and logging of 21 test pits. PID readings were taken in all pits with results reportedly indicating no significant volatile compounds were present. Fill material encountered at the site included hardfill, greenwaste and general domestic rubbish. The maximum depth of excavation was 7 m below ground level, and no groundwater was encountered in any of the pits.

### Investigations

- 24 Jul 2008** INV 6551: Resource Consent Application and Assessment of Environmental Effects  
Duffill Watts
- 25 Jun 2010** INV 6552: Response to Request for Further Information - CRC090606  
CPG

### Summary of investigation(s)

Report(s) have not yet been audited.

## Information held about other investigations on the Listed Land Use Register

- 13 Feb 2009** INV 5982: Stage 2 - Environmental Assessment Report for Lots 5, 6, 8, and 9 DP 374333, Lincoln  
Connell Wagner Limited
- 13 Feb 2009** INV 5983: Stage 1 - Environmental Assessment Report for Lots 5, 6, 8, and 9 DP 374333, Lincoln  
Connell Wagner Limited

### Summary of above Investigations

Connell Wagner was engaged to evaluate the potential for ground contamination at a former agricultural site in Lincoln. The assessment was conducted in support of the intention to develop the 118 ha site for primarily residential use. The reports refer to the site as "Lincoln Land Development" site. The investigative work was conducted in 2008. The investigations were undertaken and reported in accordance with Ministry for Environment contaminated land management guidelines.

The review of land use history, conducted as part of the preliminary site investigation, indicated that the study area had been primarily used for grazing, but with small areas of cropping also evident. The site is bisected by an old railway line, which was decommissioned in mid to late 1960s. Two areas of historical or current sewage treatment ponds were identified adjacent to the study area. The potential contaminants of concern associated with the historical activities were identified as: heavy metals, hydrocarbons, pesticides and/or pathogens. The likelihood of significant

ground contamination arising from the historical land use was considered to be low by the preliminary desktop study. With exception of the former sewage treatment plant, which was located outside of the study area's boundary, none of the identified potential contamination sources are explicitly included on Ministry for Environment's Hazardous Industries and Activities List. However, a detailed site investigation was recommended to confidently quantify the degree of contamination associated with the identified historical activities.

A detailed site investigation was conducted between April and November 2008 and comprised an assessment of soil and groundwater quality. Environment Canterbury staff were consulted in deriving the sampling and analysis programmes. A targeted sampling approach was adopted for the soil investigation. The analyses scheduled for soil samples included: total petroleum hydrocarbons, polycyclic aromatic hydrocarbons, total heavy metals, pesticides (organochlorines and organophosphates), herbicides, and *E. Coli*. Groundwater samples were analysed for routine water quality parameters and *E. Coli*. The detailed site investigation confirmed that the historical and adjacent activities had a minor impact on the contaminant status of the site's soils.

All soil samples complied with the applicable residential land use criteria. Concentrations of heavy metals, sum DDT, polycyclic aromatic hydrocarbons, and total petroleum hydrocarbons were marginally above the anticipated ambient concentrations in a number of samples. Groundwater analysis detected total iron, total manganese, nitrate and *E. coli* levels above the New Zealand Drinking Water Standards. Iron and manganese concentrations were attributed to natural processes, while nutrient and bacterial groundwater loadings were ascribed to the agricultural impacts. The detailed investigation confirmed that historical activities associated with the old railway line, the use of land for grazing, cropping, and horticulture, and the adjacent sewage treatment ponds did not result in significant ground contamination in the study area.

**13 Feb 2009** INV 2935: Lead in Soil Investigation - Lincoln Land Development Site, Lincoln. Ngai Tahu and Lincoln University Property Joint Ventures Limited  
Connell Wagner Limited

| Exceedences of environmental guideline values |             |         |       |             |
|-----------------------------------------------|-------------|---------|-------|-------------|
| Document                                      | Contaminant | Pathway | Media | Land Use    |
| Contaminated sites NEPM                       | Lead        |         | Soil  | Residential |

#### Summary of above Investigations

Connell Wagner Limited (presently Aurecon) was engaged to undertake a limited soil investigation to determine the presence of lead-based paint impact in soil surrounding painted buildings within the 118 ha 'Lincoln Land Development' site. Structures were present in three areas of the site, referred to by Connell Wagner as Areas D, H, and J by adopting the nomenclature used in the previous investigations. Area D contained a residential dwelling, two garages, and two shed/storage buildings. Because Area D was slated for immediate development, the scope of the investigation was extended to delineate the extent and magnitude of soil lead impact with respect to future residential land use. The development status of areas H and J was not finalised at the time of the investigation and the areas were unlikely to be developed for several years. Residential dwellings in Area H and J are used as rental housing by Lincoln University. The NEPC(1999) health investigation level of 300 mg/kg was selected as the action level for remediation.

The limited study showed that lead concentrations in soil immediately adjacent to all investigated structures were elevated with respect to the expected background soil levels with samples from Area D and Area H exceeding the selected action level. While partially investigated, the limited investigation of Area J indicated that soil lead impact surrounding the existing structures was lower than at other two areas. The detailed survey of lead in soil surrounding structures within Area D confirmed that lead paint was the most likely source of the impact. Lead concentrations above the NEPC (1999) health investigation level were generally confined to shallow soils immediately surrounding the buildings. Subsequent sampling of Area H detected a deeper migration of lead impact, which was attributed to acid washing of exterior walls. Based on the results of the limited soil investigation, remediation of areas D and H was recommended.

While the remedial strategy at both areas was based on excavation of impacted soil and replacement with clean soil, the methodology and the goals of remediation at Area D and Area H differed according to the planned land use. Validation sampling was conducted to verify the remedial goals and to confirm the state of imported material. Remediation was carried out in March 2009.

At Area D, which was slated for immediate residential development, the objective of remediation was to reduce the soil lead concentrations to below the NEPC (1999) health investigation level for residential land use (300 mg/kg). An additional stage of remedial excavation and validation at Area D was conducted in July 2010, after the structures were removed from the site. According to Aurecon, an area which included all the former structures within Area D was cut by stripping topsoil (approximately 400 mm) and the underlying silt horizon (minimum of 100 mm). The described cut and fill work is likely to have adequately removed the lead-impacted soil. Validation sampling at Area D has shown that lead concentrations in soil surrounding the former dwelling, an adjacent shed, and a north-most garage have been successfully reduced below 300 mg/kg, as intended. The area is considered suitable for residential development.

Remediation goals for Area H were devised in accordance with the 2007 Ministry of Health guidance for lead-exposure. Soil lead concentrations between 400 and 1,000 mg/kg were selected as remedial goals for soft-cover management (e.g. clean soil and grass/mulch). Because soil lead

concentrations above 1,000 mg/kg were recorded in validation samples collected from an initial excavation surrounding one of the houses in Area H, and due to the logistical difficulties in extending the depth of excavation, a geotextile fabric was incorporated in remediation strategy at two of the houses in Area H, placed between the exposed surface and imported soil. Tenant notices and a hazard register have been prepared to ensure the integrity of exposure barriers is maintained and to provide advice on minimising contaminated soil exposure and migration.

**For further information from Environment Canterbury, contact the Contaminated Sites Officer and refer to enquiry number 6554.**

**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 and Environment Canterbury's Contaminated Land Information Management Strategy (ECan 2009).*

*This information reflects Environment Canterbury's current understanding of this site, which is based only on the information thus far obtained by it and held on record concerning this site. It is released only as a copy of those records and is not intended to provide a full, complete or totally accurate assessment of the site. As a result, Environment Canterbury is not in a position to warrant that the information is complete or without error and accepts no liability for any inaccuracy in, or omission from, this information.*

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





## **IMPORTANT INFORMATION TO ALL NEW HOME/LAND OWNERS**

### **STREET TREES AND IRRIGATION**

The Selwyn District Council would like to make all new home/land owners and their contractors aware of the process of gaining approval to relocate/remove street trees, or alter Council irrigations systems.

In some areas of the Selwyn District, various types of linked dripper irrigation systems are installed to water establishing street trees. In some cases, the system has not been installed very deep in the ground. It is particularly important that any contractors who are going to be excavating within road berms are aware of this and excavate carefully to locate irrigation lines or drippers, or seek assistance from Council as to their presence/location before excavating. Similarly, care should be taken when excavating near street trees to avoid damage to tree roots.

The developer has put a lot of effort into enhancing the streetscape and providing an attractive environment within your subdivision. It is accepted that in some cases when a new home is built, a planted street tree and associated irrigation system may need to be shifted or removed to facilitate vehicle access to the site. Upon formal request, Council will consider giving approval for such changes to the initial planting plan or irrigation system on a case by case basis, after exploring all alternative options available.

Where it has been qualified that trees can be removed or relocated and/or an irrigation system needs to be shifted, then these works are to be organised by Council and/or the Developer and carried out by one of their approved contractors. All costs associated with these works are to be borne by the requesting land owner.

Please be aware, that in some situations, street trees can be removed and landscaping in a subdivision might still be under the management of the developer. In such cases, Council should still be contacted in the first instance, who will forward the request onto the developer for a response.

The following procedure is to be followed by a land owner who is wanting to request removal or relocation of a street tree and/or associated irrigation systems, in order to facilitate vehicle access to their property.

Requests for the removal or shifting of a tree must be made in writing to the Council Reserves Department stating:

- Street address of the property and the lot number;
- Name of the contact person;
- Contact details;
- Reason for the tree to be removed

On receipt of this formal request, Council staff will assess the following:

- Quality of the tree and whether or not the tree can successfully be moved;
- Whether an irrigation system is present and also needs shifting or decommissioning;
- Any conditions of sale by the developer;
- Any Resource Consent conditions;
- Streetscape theme and amenity value contribution of the tree.

If a tree is not able to be shifted and has to be removed, the landowner may also be required to pay for the cost to plant another tree of the same species and of similar size within the road berm as a replacement.

If an agent of the land owner makes the request to Council, then the agent is deemed to be the person responsible for the payment of all expenses relating to this procedure.

#### CARE FOR ESTABLISHING STREET TREES

Although the Developer and/or Council endeavours to water in newly planted street trees during their initial establishment years, the public is encouraged to assist with watering trees on your road berm. Establishing a tree in an urban environment faces many challenges so give your tree the best chance of reaching its full potential and value.

Council implements an annual programme of street tree inspections and maintenance throughout the district. Street tree maintenance is the responsibility of the Council, who employs a contractor to provide arboricultural services. It is critical that any other tree maintenance required is undertaken by our appointed contractor to ensure consistency in both quality and tree form.

Please contact us by lodging a Service request if your tree requires any tree maintenance.

Thank you for your assistance and co-operation

Reserves Maintenance Staff  
**Selwyn District Council**

# Be water wise



Reducing water use is important as Selwyn households tend to be high users of water. Residential properties connected to a Council supply used an average of 1,470 litres of water per day in 2012/13 and 1,386 litres per day in 2011/12. As a comparison, typical household use in New Zealand is around 675 litres per day.

Part of the reason why Selwyn households have higher water consumption is because properties tend to have large sections and over dry summers water use can increase

significantly. Additional bores can be added to increase the capacity of Council water supplies, but this is costly and unsustainable.

Over summer, demand for water is much higher than in winter, as people use more water to maintain their lawns. When demand for water is very high during dry summers, water restrictions can be introduced if necessary.

Demand is especially high at the peak times of 6–9am in the morning and 4–9pm in the evening, when people

use water for cooking, washing and dishwashers, and often water their lawns at the same time.

We are asking everyone to be careful about how they use water, especially in summer when there is more demand for water. Some areas like Rolleston and Darfield also pay for their water based on metered use so reducing your water consumption will mean you spend less on water bills.

## How much water do you use?

This chart shows the amount of water typically used for different household activities. Once you know where your water is going, you can think about how you could reduce your water use. If your water is metered and billed this will help reduce how much you spend on water.

| Kitchen—Activity                            | Water used                       | Buckets     |
|---------------------------------------------|----------------------------------|-------------|
| Dishwashing by Hand                         | 12 to 15 litres per wash         | 1–1½        |
| Dishwasher                                  | 20 to 60 litres per wash         | 2–6         |
| Drinking, Cooking, Cleaning                 | 8 litres per person              | ¾–1         |
| Bathroom—Activity                           | Water used                       | Buckets     |
| Toilet                                      | 4.5 to 11 litres per flush       | ½–1         |
| Bath                                        | 50 to 120 litres (half full)     | 5–12        |
| Shower (8 minutes)                          | 70 to 160 litres per 8 minutes   | 7–16        |
| Handbasin                                   | 5 litres                         | ½           |
| Tap Running (Cleaning teeth, washing hands) | 5 litres                         | ½           |
| Leaking Tap                                 | 200 litres                       | 20          |
| Laundry—Activity                            | Water used                       | Buckets     |
| Washing Machine (Front loading)             | 23 litres per kg of dry clothing | 4–5         |
| Washing Machine (Top Loading)               | 31 litres per kg of dry clothing | 5–6         |
| Outside—Activity                            | Water used                       | Buckets     |
| Hand Watering by Hose                       | 600 to 900 litres per hour       | 60–90       |
| Garden Sprinkler                            | Up to 1500 litres per hour       | 150         |
| Car Wash with Hose                          | 100 to 300 litres                | 10–30       |
| Filling Swimming Pool                       | 20,000 to 50,000 litres          | 2,000–5,000 |
| Leaking Pipe (1.5mm hole)                   | 300 litres per day               | 30          |





## Tips for managing your water use

**You can help manage your water consumption wisely by following these tips:**

### Your garden and lawn

- Water your garden and lawn every few days rather than every day. Wetting the soil surface every day encourages roots to develop at the surface, making them more vulnerable to hot dry spells.
- Water your garden and lawn outside of peak water usage hours (avoid 6am–9am, and 4pm–9pm). Watering in the early morning (before 6am) or late evening (after 9pm) will minimise evaporation loss. Also avoid watering in a Nor' West wind as the water will quickly evaporate.
- Using a watering can or hand watering plants by hose often uses far less water than a sprinkler.
- Use a timer to avoid overwatering as it makes plants more susceptible to fungus diseases and will leach out soil nutrients.
- Use mulch or cover the soil with a layer of organic matter to keep the soil moist. Mulches help protect plant roots from drying effects of sun and wind and also reduce weed growth.

- Check if the soil needs watering by digging down with a trowel and having a look. This is a more accurate way to see if watering is needed than looking at the surface.
- Check you have the right head for your sprinkler. Sprinklers should apply water gently so that it seeps into the soil. Some sprinklers apply water faster than the soil can absorb.
- When planting choose drought resistant plants that don't require a lot of water.



### Outdoors

- Wash your car with a bucket of water rather than a hose.
- Use a broom rather than hosing down paths and driveways.
- Inspect hoses and taps both indoors and outdoors to check for leaks which waste water.
- Collect rainwater for use watering gardens and lawns.
- If you have a swimming pool, keep it covered to stop the water evaporating.

### Indoors

- Reduce your water consumption at the peak times of 6-9am and 4-9pm. Easy ways to do this include using your washing machine after 9pm at night, and putting your dishwasher on just before you go to bed.
- Take a short shower instead of a bath.
- Don't switch on the dishwasher or washing machine until you have a full load.
- Use a half flush when using the toilet.



2 Norman Kirk Drive, Rolleston, New Zealand  
PO Box 90, Rolleston 7643  
Telephone (03) 347-2800  
Toll-free Darfield (03) 318-8338  
Enquiries: [accounts.receivable@selwyn.govt.nz](mailto:accounts.receivable@selwyn.govt.nz)

Birchfield Estates Limited  
270 Marshs Road  
RD 6  
Christchurch 7676

**GST Number:** 53-113-451  
**Invoice Date:** 8/10/2025  
**Account No:** 806827  
**Order No.**

## Tax Invoice 242671

| Qty          | Description                                        | Rate | GST   | Amount          |
|--------------|----------------------------------------------------|------|-------|-----------------|
| L252255      | 8/10/25 : Sonja Waine : Birchfield Estates Limited |      |       |                 |
| 2356120700   | : 555 Birchs Road                                  |      |       |                 |
|              | Non Residential - Land Information Memorandum      |      | 58.70 | 450.00          |
| Subtotal     |                                                    |      |       | 391.30          |
| GST          |                                                    |      |       | 58.70           |
| Total Amount |                                                    |      |       | <b>\$450.00</b> |

(Please detach and return this portion with your payment)

### REMITTANCE ADVICE

Birchfield Estates Limited  
270 Marshs Road  
RD 6  
Christchurch 7676

**Account No.:** 806827  
**Invoice No.:** 242671  
**Total Due:** **\$450.00**

### Amount Enclosed:

Payment can be made by internet banking to the following account: 03 1587 0050000 00.

Please enter your account number in the particulars field, and your invoice number in the code field.

You are welcome to pay your invoice online by visiting our website <https://www.selwyn.govt.nz>

