

Property Statement from the Listed Land Use Register

Visit www.ecan.govt.nz/HAIL for more information about land uses.



Customer Services
P. 03 353 9007 or 0800 324 636

PO Box 345
Christchurch 8140

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

www.ecan.govt.nz

Date:

16 July 2014

Land Parcels:

Part RS 1175

Valuation No(s): 2159139200



Summary of sites:

There are no sites associated with the area of enquiry.

Information held about the sites on the Listed Land Use Register

There are no sites associated with the area of enquiry.

Information held about other investigations on the Listed Land Use Register

There are no investigations associated with the area of enquiry.

For further information from Environment Canterbury, contact Customer Services and refer to enquiry number ENQ59161.

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).

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

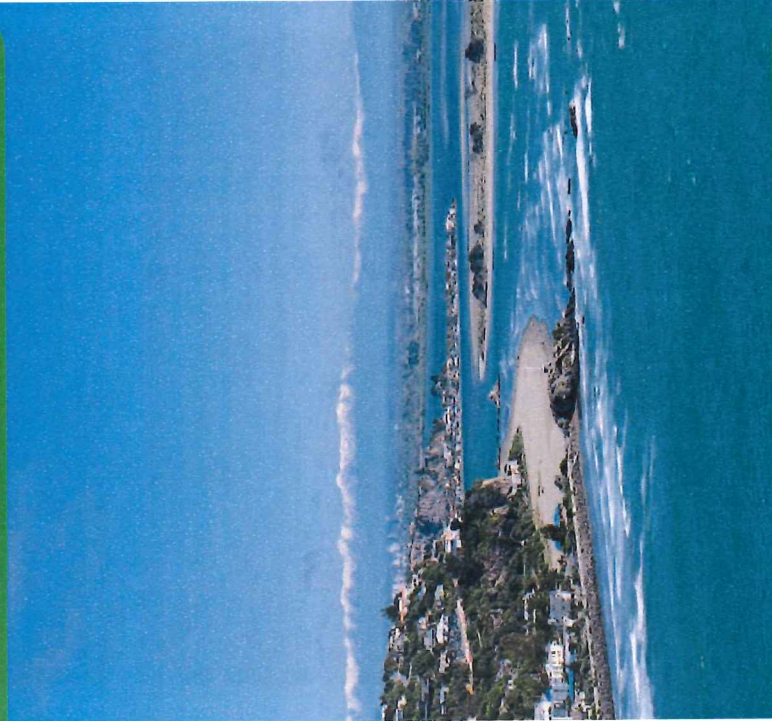
Any person receiving and using this information is bound by the provisions of the Privacy Act 1993.



**Environment
Canterbury**
Regional Council
Kaunihera Taiao ki Waitemā

Listed Land Use Register

What you need to know



Everything is connected

What is the Listed Land Use Register (LLUR)?

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

Why do we need the LLUR?

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

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

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

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

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

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

We have two main ways of identifying HAIL sites:

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

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

How does Environment Canterbury classify sites on the LLUR?

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

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

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

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

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

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

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

IMPORTANT!

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

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

You may choose to have your property further investigated for your own peace of mind, or because you want to do one of the activities covered by the National Environmental Standard for Assessing and Managing Contaminants in Soil. Your district or city council will provide further information.

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



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

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

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

Contact us

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

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

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

Contact Environment Canterbury:

Email: ecinfo@ecan.govt.nz

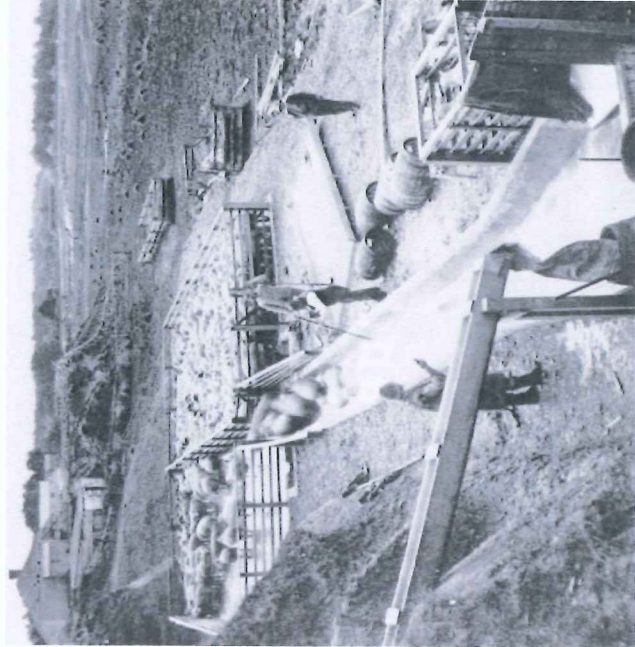
Phone:

Calling from Christchurch: (03) 353 9007

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

IMPORTANT!

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



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

Listed Land Use Register

Site categories and definitions

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

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

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

Not investigated:

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

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

At or below background concentrations:

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

Below guideline values for:

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

Managed for:

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

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

Partially investigated:

The site has been partially investigated. Results:

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

Significant adverse environmental effects:

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

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

Contaminated:

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

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

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

Verified non-HAIL:

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

Please contact Environment
Canterbury for further information:

(03) 353 9007 or toll free
on 0800 EC INFO (32 4636)
email ecinfo@ecan.govt.nz



**Environment
Canterbury**
Regional Council
Kaunihera Taiao ki Waitaha

Record Number: CRC971644
Record Type: New Consent
Permit Type: Land Use Consent
Record Holder: Mr & Mrs P J & P J Waters
Record Status: Terminated - Expired
File Number: CO6C/02136

Previous Record(s):

Next Record(s):

Location: Oxford Rangiora Road, RANGIORA
Description: to install bore M35/7669 at or about map reference M35:7499-6665, for domestic supply.



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Key Dates:

Event	Date
Commencement Date	28 Jan 1997
Expires	27 Jan 2000

Workflow (Only shows if workflow has open tasks):

Task Name	Task Status	Task Status Date
-----------	-------------	------------------

Conditions:

No	Text
1	The 150 millimetre diameter bore shall be installed to a depth of approximately 14 metres.
2	A completed bore details form and well log shall be forwarded to the Canterbury Regional Council once drilling is completed.
3	The bore shall be sited as shown on the plan submitted with the application.
4	Measures shall be undertaken to prevent surface waters entering underlying groundwater. (This condition can only normally be achieved by having the top of the casing greater than 100 millimetres above the ground surface and grouting around the top of the casing.)
5	The bore shall be installed within two years of the date of granting this resource consent.
6	Charges, set in accordance with section 36 of the Resource Management Act 1991, shall be paid to the Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of resource consents and for the carrying out of its functions under section 35 of the Act.

Record Number: CRC972096.1
Record Type: Change in Conditions
Permit Type: Water Permit
Record Holder: Mr & Mrs P J & P J Waters
Record Status: Issued - Active
File Number: CO6C/02136
Previous Record(s): CRC972096
Next Record(s):
Location: 84 Oxford Road, RANGIORA
Description: to take groundwater at or about map reference M35:7499-6665 for small community public supply and irrigation of up to 7.3 hectares.



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Key Dates:

Event	Date
Change Takes Effect Date	27 Feb 1998
Given Effect To	14 Apr 1997
Lapses	14 Apr 1999
Expires	09 Apr 2032

Workflow (Only shows if workflow has open tasks):

Task Name	Task Status	Task Status Date
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Conditions:

No	Text
1	The rate at which water is taken from bore M35/7669, 150 millimetres diameter and 18.1 metres deep, shall not exceed 2.7 litres per second, with a volume not exceeding 156 cubic metres per day.
2	When requested in writing by the Canterbury Regional Council, the hours and rate at which water is taken shall be recorded to within an accuracy of 10 percent. A copy of the records shall be provided to the Canterbury Regional Council when requested.
3	The Canterbury Regional Council may annually, on the last working day of June, serve notice of its intention to review the conditions of this consent for the purposes of:(a) dealing with any adverse effect on the environment which may arise from the exercise of the consent and which is appropriate to deal with at a later stage; or(b) complying with the requirements of a relevant rule in an operative regional plan.
4	Charges, set in accordance with section 36 of the Resource Management Act 1991, shall be paid to the Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of resource consents and for the carrying out of its functions under section 35 of the Act.

Record Number: CRC990495
Record Type: Renewal
Permit Type: Water Permit
Record Holder: Clarence Edwards Lewis
Record Status: Issued - Active
File Number: CO6C/01131
Previous Record(s): NCY880477
Next Record(s):
Location: Lehmans Rd, RANGIORA
Description: to take groundwater via bore M35/2905 at or about map reference NZMS 260 M35:7480-6680 for irrigation of up to 12 hectares.



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Key Dates:

Event	Date
Commencement Date	01 Apr 1999
Given Effect To	01 Apr 1999
Lapses	01 Apr 2001
Expires	29 Mar 2034

Workflow (Only shows if workflow has open tasks):

Task Name	Task Status	Task Status Date
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Conditions:

No	Text
1	The rate at which water is taken from bore M35/2905, 150 millimetres diameter and 12.8 metres deep, shall not exceed 2.3 litres per second, with a volume not exceeding 994 cubic metres in any period of 30 consecutive days.
2	This consent shall not be exercised concurrently with consent NCY880477.
3	When requested in writing by the Canterbury Regional Council, the rate at which water is taken shall be measured to within an accuracy of 10 percent, and the measurement and the hours during which water is taken shall be recorded. A copy of the records shall be provided to the Canterbury Regional Council in accordance with the request.
4	The Canterbury Regional Council may, on the last working day of June each year, serve notice of its intention to review the conditions of this consent for the purposes of: (a) dealing with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or (b) complying with the requirements of a relevant rule in an operative regional plan.
5	Charges, set in accordance with section 36 of the Resource Management Act 1991, shall be paid to the Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of resource consents and for the carrying out of its functions under section 35 of the Act.

Record Number: NCY880477
Record Type: New Consent
Permit Type: Water Permit
Record Holder: Clarence Edwards Lewis
Record Status: Terminated - Expired
File Number: CO6C/01131

Previous Record(s):

Next Record(s):

Location: Lehmans Rd, RANGIORA

Description: take up to 66 cubic metres of water per day at a maximum rate of 2.3 litres per second, for 8 hours per day from bore M35/2905, 150mm diameter and 12.8 metres deep at map reference M35:748-668 for spray irrigation of pasture and lucerne.



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Key Dates:

Event	Date
Commencement Date	02 Sep 1988
Expires	30 Apr 1999

Workflow (Only shows if workflow has open tasks):

Task Name	Task Status	Task Status Date
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Conditions:

No	Text

Bore or Well No: M35/2837

Well Name:

Owner: STEVENS, A.G.



Street of Well: OXFORD RANGIORA RD

File No:

Locality: RANGIORA

Allocation Zone: Ashley

NZGM Grid Reference: M35:749-667 QAR 4

NZGM X-Y: 2474900 - 5766700

Location Description:

Uses: Domestic and Stockwater

ECan Monitoring:

Well Status: Active (exist, present)

Drill Date:

Water Level Count: 0

Well Depth: 45.70m -GL

Strata Layers: 0

Initial Water Depth:

Aquifer Tests: 0

Diameter: 100mm

Isotope Data: 0

Yield/Drawdown Tests: 0

Measuring Point Ait: 42.05m MSD QAR 4

Highest GW Level:

GL Around Well: 0.00m -MP

Lowest GW Level:

MP Description:

First Reading:

Last Reading:

Driller: not known

Calc. Min. GWL: -11.70m -MP

Drilling Method: Unknown

Last Updated: 11 May 2012

Casing Material:

Last Field Check:

Pump Type: Unknown

Yield:

Screens:

Drawdown:

Screen Type:

Specific Capacity:

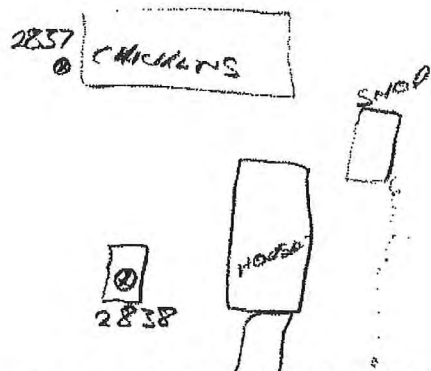
Top GL:

Bottom GL:

Aquifer Type: Unknown

Aquifer Name:

LOCATION SKETCH



OXFORD RANGIORA RD.

Unknown No: M35/2851

Well Name:

Owner: GUY, L.M.



Street of Well: S.H.72

Locality: RANGIORA

NZGM Grid Reference: M35:748-667 QAR 4

NZGM X-Y: 2474800 - 5766700

Location Description:

ECan Monitoring:

Well Status: Active (exist, present)

File No:

Allocation Zone: Ashley

Uses: Domestic Supply

Drill Date:

Well Depth:

Initial Water Depth:

Diameter:

Water Level Count: 0

Strata Layers: 0

Aquifer Tests: 0

Isotope Data: 0

Yield/Drawdown Tests: 0

Measuring Point Ait: 42.56m MSD QAR 4

GL Around Well: 0.00m -MP

MP Description:

Driller: not known

Drilling Method: Unknown

Casing Material:

Pump Type: Unknown

Yield:

Drawdown:

Specific Capacity:

Highest GW Level:

Lowest GW Level:

First Reading:

Last Reading:

Calc. Min. GWL:

Last Updated: 18 Oct 2006

Last Field Check:

Screens:

Screen Type:

Top GL:

Bottom GL:

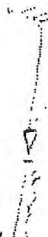
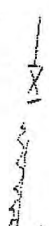
Aquifer Type: Unknown

Aquifer Name:

LOCATION SKETCH



2852.



SH 72



2851



141 GARDENS RD

Bore or Well No: M35/2905

Well Name:

Owner: Mr C E Lewis



Street of Well: LEHMANS RD

File No: CO6C/01131

Locality: RANGIORA

Allocation Zone: Ashley

NZGM Grid Reference: M35:748-668 QAR 4

NZGM X-Y: 2474800 - 5766800

Location Description:

Uses: Irrigation

ECan Monitoring:

Well Status: Active (exist, present)

Drill Date: 15 Jun 1983

Water Level Count: 0

Well Depth: 13.50m -GL

Strata Layers: 7

Initial Water Depth:

Aquifer Tests: 0

Diameter: 150mm

Isotope Data: 0

Yield/Drawdown Tests: 1

Measuring Point Ait: 43.31m MSD QAR 4

Highest GW Level:

GL Around Well: 0.00m -MP

Lowest GW Level:

MP Description:

First Reading:

Last Reading:

Driller: McMillan Drilling Group

Calc. Min. GWL: -6.00m -MP

Drilling Method: Driven Pipe

Last Updated: 08 Nov 2013

Casing Material:

Last Field Check:

Pump Type: Unknown

Yield: 2 l/s

Screens:

Drawdown: 0 m

Screen Type: Stainless steel

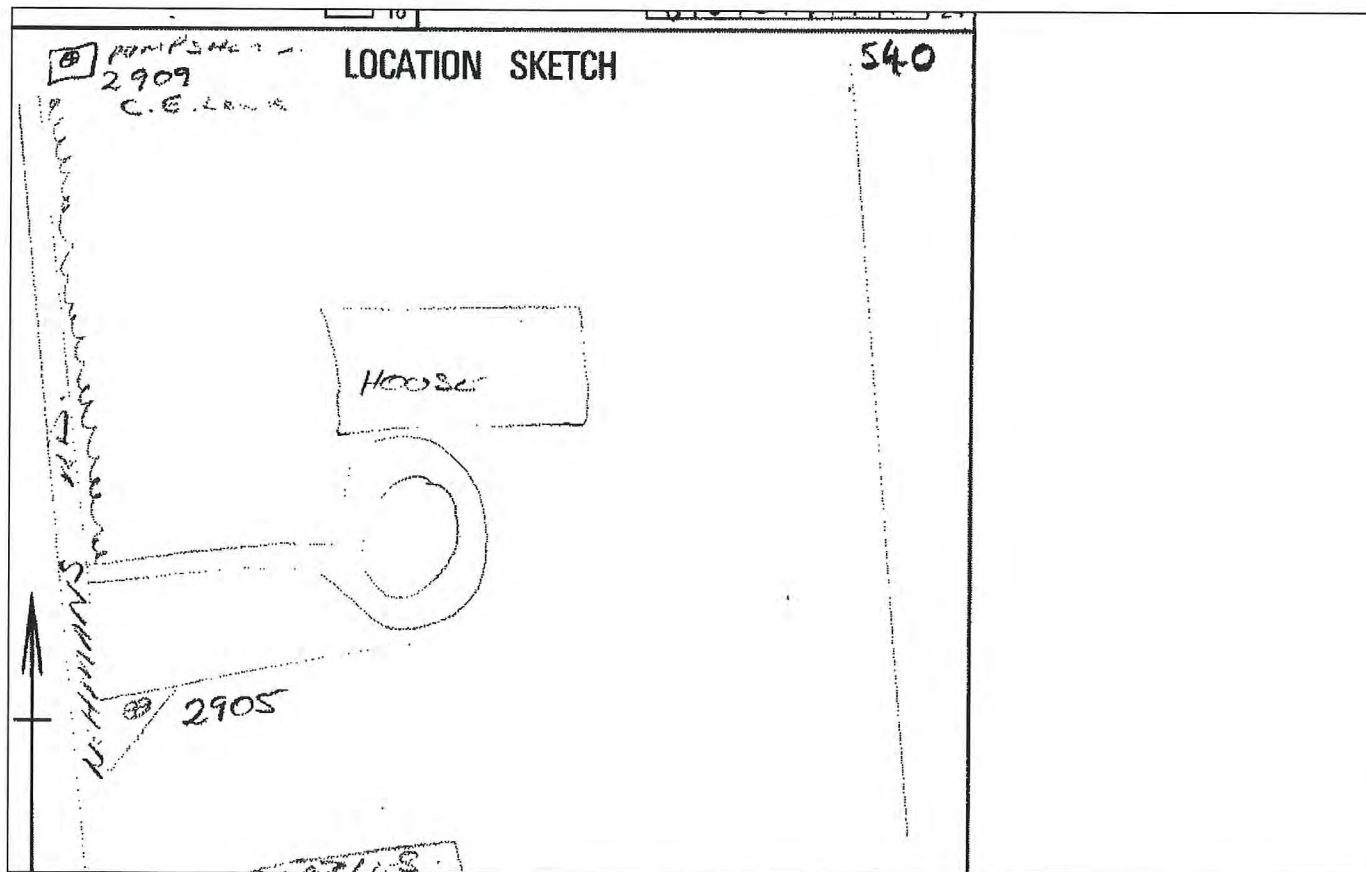
Specific Capacity: 7.67 l/s/m

Top GL: 12.20m

Bottom GL: 13.50m

Aquifer Type: Unknown

Aquifer Name:



Drill Depth : -13.5m Drill Date : 15/06/1983



Scale(m)	Water Level	Depth(m)	Full Drillers Description	Formation Code
		-0.50m	Earth	
		-1.60m	Brown clay	
		-3.13m	Large gravel, some clay	
		-5.98m	Large gravels, some clay	
	-6.00m	-6.00m	Claybound	
		-8.84m	Water-bearing gravels	
		-10.7m	No water below this	
		-13.5m		

Bore or Well No: M35/2909

Well Name:

Owner: LEWIS, C.E.



Street of Well: LEHMANS RD

File No:

Locality: RANGIORA

Allocation Zone: Ashley

NZGM Grid Reference: M35:748-669 QAR 4

NZGM X-Y: 2474800 - 5766900

Location Description:

Uses: Domestic and Stockwater

ECan Monitoring:

Well Status: Active (exist, present)

Drill Date: 01 Jul 1930

Water Level Count: 0

Well Depth: 9.10m -GL

Strata Layers: 0

Initial Water Depth:

Aquifer Tests: 0

Diameter: 51mm

Isotope Data: 0

Yield/Drawdown Tests: 0

Measuring Point Ait: 43.98m MSD QAR 4

Highest GW Level:

GL Around Well: 0.00m -MP

Lowest GW Level:

MP Description:

First Reading:

Last Reading:

Driller: not known

Calc. Min. GWL: -6.10m -MP

Drilling Method: Driven Pipe

Last Updated: 12 Jul 1994

Casing Material:

Last Field Check:

Pump Type: Unknown

Yield:

Screens:

Drawdown:

Screen Type:

Specific Capacity:

Top GL:

Bottom GL:

Aquifer Type: Unknown

Aquifer Name:



New Zealand Fire Service

National Headquarters
Level 12
80 The Terrace
PO Box 2133
Wellington

New Zealand

Phone+64 4 496 3600, Fax +64 4 496 3700

4 July 2014

Mr Ryan Buchanan
Environmental Consultant
Coffey International Ltd
PO Box 8261
Symonds Street
AUCKLAND 1150

By email: ryan.buchanan@coffey.com

Dear Mr Buchanan

Official Information Request: Ref 2014.074

I refer to your official information request of 26 June 2014.

I now enclose a list of all incidents attended by the New Zealand Fire Service within 100 metres of the boundaries of 267 Cambridge Road, Tauranga, and 100 Oxford Road, Rangiora.

As no time period was specified, all incidents on record with coordinates within the requested distance of the boundaries have been supplied.

Yours sincerely

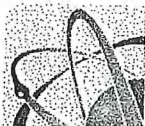
Rob Pope
Director, Office of the Chief Executive

encl

OIA 2014-074 - NZFS Incidents within 100m of 100 Oxford Road, Rangiaora

Date/Time	CAD#	Incident Type Group	Incident Type	Common Name (Name at time)	Address
12/01/2012	F1105458	Mobile Property Fire	Car, Van, Truck, Boat, Plane, Train fire		OXFORD RD and LEHMANS RD
12/11/2011	F1072057	Miscellaneous Fire	Bonfire		84 OXFORD ROAD
12/02/2011	F0906448	Vegetation Fire	Vegetation Fire (less than 20 sq. m)		86 OXFORD ROAD
8/01/2008	F059284	Rescue, Emergency, Medical Call	Rescue in or under vehicle/mobile property		OXFORD RD and LEHMANS RD
17/08/2006	M615371	False Alarm	False alarm: Excess Smoke, Heat		LEHMANS ROAD
26/09/2001	M213766	Mobile Property Fire	Car, Van, Truck, Boat, Plane, Train fire		LEHMANS ROAD
17/07/1998	M001358	Mobile Property Fire	Derelict mobile property fire		LEHMANS ROAD

Appendix E - Full Laboratory Analytical Results



Hill Laboratories

BETTER TESTING BETTER RESULTS

Client

COFFEY

Name

WRIGHTS RO

Address

CHRISTCHURCH

Phone

Fax

Client Reference

ENNZCHRI 52059AA

Quote No

Order Number

ENVI-10061

Primary Contact

N. MORGAN

Submitted By

" "

Charge To

" "

Results To



Mail Client



Mail Submitter

☐ Fax Results

☒ Email Results

nicole.morgan@coffey.com

ADDITIONAL INFORMATION

Sample Types

Waters	E	Effluent	G	Geothermal	Pot1	Potable Water (LAS/EU)	Pot2	Potable Water (NZDWS)
	GW	Ground Water	L	Leachate	☐	Audit Monitoring	Pot3	Potable Water (other)
	SW	Surface Water	S	Saline	☐	Check Monitoring	Pool	Swimming/Spa Pool
	TW	Trade Waste						
Solids	ES	Soil	SE	Sediment	SL	Sludge	PL	Plant
Other	O	O Oil	M	Miscellaneous	FS	FS Fish/shellfish/biota	BM	BM/Biological Material

No.	Sample Name	Sample Date & Time	Sample Type	Tests Required
1	SS1	20/06/14	Soil	(Metals + Hg) and OCP's Screen.
2	SS 2-A			" " "
3	SS 2-B			" " "
4	SS 3			
5	SS 4			(Metals + Hg) and OCP's Screen.
6	SS 5			Metals
7	SS 6			COLD HOL
8	SS 7			(Metals + Hg) and OCP's Screen.
9	SS 8			" " "
10	SS 9			Metals

ANALYSIS

R J Hill Laboratories Limited

1 Clyde Street

Private Bag 3205

Hamilton 3240, New Zealand

Date Recv: 23-Jun-14 14:06
129 0534

Received by: Sandy Watson



3112805342

Web www.hill.co.nz

Office use only Job No

CHAIN OF CUSTODY RECORD

Sent to

Hill Laboratories

Date & Time: 23/06/14

Name: N. MORGAN

☐ Please tick if you require COC to be faxed back

Signature:

N. Morgan

Received at

Hill Laboratories

Date & Time:

Name: Sandy

Signature:

Condition

☐ Room Temp

☒ Chilled

☐ Frozen

Temp: 12.2°C

☐ Sample Analysis details checked

Signature:

Priority

☐ Low

☒ Normal

☒ High

☐ Urgent (ASAP, extra charge applies, please contact the lab first)

Requested Reporting Date:



Job Information Summary

Page 1 of 1

Client:	Coffey Geotechnics	Lab No:	1290534
Contact:	Nicole Morgan	Date Registered:	24-Jun-2014 9:47:53 am
	C/- Coffey Geotechnics	Priority:	High
	PO Box 1872	Quote No:	
	CHRISTCHURCH 8140	Order No:	ENVI-10061
		Client Reference:	ENNZCHRI52059AA
		Add. Client Ref:	
		Submitted By:	Nicole Morgan
		Charge To:	Coffey Geotechnics

Samples

No	Sample Name	Sample Type	Containers	Tests Requested
1	SS1 20-Jun-2014	Soil	PSoil250, GSoil300	Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg; Organochlorine Pesticides Screening in Soil
2	SS2-A 20-Jun-2014	Soil	PSoil250, GSoil300	Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg; Organochlorine Pesticides Screening in Soil
3	SS2-B 20-Jun-2014	Soil	PSoil250	Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg; Organochlorine Pesticides Screening in Soil
4	SS4 20-Jun-2014	Soil	GSoil300	Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg; Organochlorine Pesticides Screening in Soil
5	SS5 20-Jun-2014	Soil	GSoil300	Heavy metal screen level As,Cd,Cr,Cu,Ni,Pb,Zn
6	SS6 20-Jun-2014	Soil	GSoil300	Hold Cold
7	SS7 20-Jun-2014	Soil	GSoil300	Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg; Organochlorine Pesticides Screening in Soil
8	SS8 20-Jun-2014	Soil	GSoil300	Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg; Organochlorine Pesticides Screening in Soil
9	SS9 20-Jun-2014	Soil	GSoil300	Heavy metal screen level As,Cd,Cr,Cu,Ni,Pb,Zn

SUMMARY OF METHODS

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Environmental Solids Sample Preparation	Air dried at 35°C and sieved, <2mm fraction. Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1-5, 7-9
Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg	Dried sample, <2mm fraction. Nitric/Hydrochloric acid digestion, ICP-MS, screen level.	0.10 - 4 mg/kg dry wt	1-4, 7-8
Heavy metal screen level As,Cd,Cr,Cu,Ni,Pb,Zn	Dried sample, <2mm fraction. Nitric/Hydrochloric acid digestion, ICP-MS, screen level.	0.10 - 4 mg/kg dry wt	5, 9
Organochlorine Pesticides Screening in Soil	Sonication extraction, SPE cleanup, dual column GC-ECD analysis (modified US EPA 8082).. Tested on dried sample	0.010 - 0.04 mg/kg dry wt	1-4, 7-8
Total Recoverable digestion	Nitric / hydrochloric acid digestion. US EPA 200.2.	-	1-5, 7-9



ANALYSIS REPORT

Page 1 of 3

Client:	Coffey Geotechnics	Lab No:	1290534	SPV1
Contact:	Nicole Morgan	Date Registered:	24-Jun-2014	
	C/- Coffey Geotechnics	Date Reported:	30-Jun-2014	
	PO Box 1872	Quote No:		
	CHRISTCHURCH 8140	Order No:	ENVI-10061	
		Client Reference:	ENNZCHRI52059AA	
		Submitted By:	Nicole Morgan	

Sample Type: Soil

Sample Name:		SS1 20-Jun-2014	SS2-A 20-Jun-2014	SS2-B 20-Jun-2014	SS4 20-Jun-2014	SS5 20-Jun-2014
Lab Number:		1290534.1	1290534.2	1290534.3	1290534.4	1290534.5
Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg						
Total Recoverable Arsenic	mg/kg dry wt	4	6	8	13	-
Total Recoverable Cadmium	mg/kg dry wt	0.18	0.16	0.23	0.43	-
Total Recoverable Chromium	mg/kg dry wt	20	19	19	104	-
Total Recoverable Copper	mg/kg dry wt	14	13	13	39	-
Total Recoverable Lead	mg/kg dry wt	19.2	19.2	19.7	105	-
Total Recoverable Mercury	mg/kg dry wt	< 0.10	< 0.10	< 0.10	< 0.10	-
Total Recoverable Nickel	mg/kg dry wt	18	17	17	21	-
Total Recoverable Zinc	mg/kg dry wt	79	77	77	320	-
Heavy metal screen level As,Cd,Cr,Cu,Ni,Pb,Zn						
Total Recoverable Arsenic	mg/kg dry wt	-	-	-	-	5
Total Recoverable Cadmium	mg/kg dry wt	-	-	-	-	0.20
Total Recoverable Chromium	mg/kg dry wt	-	-	-	-	19
Total Recoverable Copper	mg/kg dry wt	-	-	-	-	14
Total Recoverable Lead	mg/kg dry wt	-	-	-	-	20
Total Recoverable Nickel	mg/kg dry wt	-	-	-	-	16
Total Recoverable Zinc	mg/kg dry wt	-	-	-	-	86
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
alpha-BHC	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
beta-BHC	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
delta-BHC	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
gamma-BHC (Lindane)	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
cis-Chlordane	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
trans-Chlordane	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Total Chlordane [(cis+trans)* 100/42]	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	-
2,4'-DDD	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
4,4'-DDD	mg/kg dry wt	0.016	0.010	0.017	< 0.010	-
2,4'-DDE	mg/kg dry wt	< 0.010	< 0.010	0.010	< 0.010	-
4,4'-DDE	mg/kg dry wt	0.57	0.28	0.47	0.112	-
2,4'-DDT	mg/kg dry wt	0.054	0.030	0.058	0.012	-
4,4'-DDT	mg/kg dry wt	0.30	0.166	0.32	0.085	-
Dieldrin	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Endosulfan I	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Endosulfan II	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Endosulfan sulphate	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Endrin	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Endrin aldehyde	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-



Sample Type: Soil						
Sample Name:		SS1 20-Jun-2014	SS2-A 20-Jun-2014	SS2-B 20-Jun-2014	SS4 20-Jun-2014	SS5 20-Jun-2014
Lab Number:		1290534.1	1290534.2	1290534.3	1290534.4	1290534.5
Organochlorine Pesticides Screening in Soil						
Endrin ketone	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Heptachlor	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Heptachlor epoxide	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Hexachlorobenzene	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Methoxychlor	mg/kg dry wt	< 0.010	< 0.010	< 0.010	< 0.010	-
Sample Name:		SS7 20-Jun-2014	SS8 20-Jun-2014	SS9 20-Jun-2014		
Lab Number:		1290534.7	1290534.8	1290534.9		
Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg						
Total Recoverable Arsenic	mg/kg dry wt	6	21	-	-	-
Total Recoverable Cadmium	mg/kg dry wt	0.69	0.17	-	-	-
Total Recoverable Chromium	mg/kg dry wt	22	19	-	-	-
Total Recoverable Copper	mg/kg dry wt	16	32	-	-	-
Total Recoverable Lead	mg/kg dry wt	55	89	-	-	-
Total Recoverable Mercury	mg/kg dry wt	0.15	< 0.10	-	-	-
Total Recoverable Nickel	mg/kg dry wt	16	16	-	-	-
Total Recoverable Zinc	mg/kg dry wt	710	109	-	-	-
Heavy metal screen level As,Cd,Cr,Cu,Ni,Pb,Zn						
Total Recoverable Arsenic	mg/kg dry wt	-	-	9	-	-
Total Recoverable Cadmium	mg/kg dry wt	-	-	0.18	-	-
Total Recoverable Chromium	mg/kg dry wt	-	-	20	-	-
Total Recoverable Copper	mg/kg dry wt	-	-	30	-	-
Total Recoverable Lead	mg/kg dry wt	-	-	99	-	-
Total Recoverable Nickel	mg/kg dry wt	-	-	16	-	-
Total Recoverable Zinc	mg/kg dry wt	-	-	175	-	-
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.010	< 0.010	-	-	-
alpha-BHC	mg/kg dry wt	< 0.010	< 0.010	-	-	-
beta-BHC	mg/kg dry wt	< 0.010	< 0.010	-	-	-
delta-BHC	mg/kg dry wt	< 0.010	< 0.010	-	-	-
gamma-BHC (Lindane)	mg/kg dry wt	< 0.010	< 0.010	-	-	-
cis-Chlordane	mg/kg dry wt	< 0.010	< 0.010	-	-	-
trans-Chlordane	mg/kg dry wt	< 0.010	< 0.010	-	-	-
Total Chlordane [(cis+trans)* 100/42]	mg/kg dry wt	< 0.04	< 0.04	-	-	-
2,4'-DDD	mg/kg dry wt	< 0.010	< 0.010	-	-	-
4,4'-DDD	mg/kg dry wt	< 0.010	< 0.010	-	-	-
2,4'-DDE	mg/kg dry wt	< 0.010	< 0.010	-	-	-
4,4'-DDE	mg/kg dry wt	< 0.010	< 0.010	-	-	-
2,4'-DDT	mg/kg dry wt	< 0.010	< 0.010	-	-	-
4,4'-DDT	mg/kg dry wt	< 0.010	< 0.010	-	-	-
Dieldrin	mg/kg dry wt	< 0.010	< 0.010	-	-	-
Endosulfan I	mg/kg dry wt	< 0.010	< 0.010	-	-	-
Endosulfan II	mg/kg dry wt	< 0.010	< 0.010	-	-	-
Endosulfan sulphate	mg/kg dry wt	< 0.010	< 0.010	-	-	-
Endrin	mg/kg dry wt	< 0.010	< 0.010	-	-	-
Endrin aldehyde	mg/kg dry wt	< 0.010	< 0.010	-	-	-
Endrin ketone	mg/kg dry wt	< 0.010	< 0.010	-	-	-
Heptachlor	mg/kg dry wt	< 0.010	< 0.010	-	-	-
Heptachlor epoxide	mg/kg dry wt	< 0.010	< 0.010	-	-	-
Hexachlorobenzene	mg/kg dry wt	< 0.010	< 0.010	-	-	-
Methoxychlor	mg/kg dry wt	< 0.010	< 0.010	-	-	-

SUMMARY OF METHODS

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
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Heavy metals, screen As,Cd,Cr,Cu,Ni,Pb,Zn,Hg	Dried sample, <2mm fraction. Nitric/Hydrochloric acid digestion, ICP-MS, screen level.	0.10 - 4 mg/kg dry wt	1-4, 7-8
Heavy metal screen level As,Cd,Cr,Cu,Ni,Pb,Zn	Dried sample, <2mm fraction. Nitric/Hydrochloric acid digestion, ICP-MS, screen level.	0.10 - 4 mg/kg dry wt	5, 9
Organochlorine Pesticides Screening in Soil	Sonication extraction, SPE cleanup, dual column GC-ECD analysis (modified US EPA 8082).. Tested on dried sample	0.010 - 0.04 mg/kg dry wt	1-4, 7-8
Total Recoverable digestion	Nitric / hydrochloric acid digestion. US EPA 200.2.	-	1-5, 7-9

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Samples are held at the laboratory after reporting for a length of time depending on the preservation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the client.

This report must not be reproduced, except in full, without the written consent of the signatory.



Ara Heron BSc (Tech)
Client Services Manager - Environmental Division

Appendix I

Objectives and Policies of Relevant Planning Documents



Canterbury Regional Policy Statement

Chapter 5 – Land Use and Infrastructure

Objective 5.2.1 – Location, design and function of development (Entire Region)

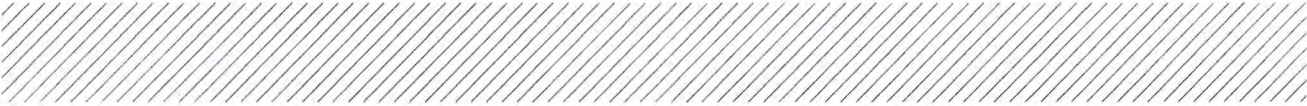
Development is located and designed so that it functions in a way that:

- (1) *achieves consolidated, well designed and sustainable growth in and around existing urban areas as the primary focus for accommodating the region's growth; and*
- (2) *enables people and communities, including future generations, to provide for their social, economic and cultural well-being and health and safety; and which:*
 - (a) *maintains, and where appropriate, enhances the overall quality of the natural environment of the Canterbury region, including its coastal environment, outstanding natural features and landscapes, and natural values;*
 - (b) *provides sufficient housing choice to meet the region's housing needs;*
 - (c) *encourages sustainable economic development by enabling business activities in appropriate locations;*
 - (d) *minimises energy use and/or improves energy efficiency;*
 - (e) *enables rural activities that support the rural environment including primary production;*
 - (f) *is compatible with, and will result in the continued safe, efficient and effective use of regionally significant infrastructure;*
 - (g) *avoids adverse effects on significant natural and physical resources including regionally significant infrastructure, and where avoidance is impracticable, remedies or mitigates those effects on those resources and infrastructure;*
 - (i) *avoids conflicts between incompatible activities.*

Objective 5.2.2 – Integration of land-use and regionally significant infrastructure (Wider Region)

In relation to the integration of land use and regionally significant infrastructure:

- (1) *To recognise the benefits of enabling people and communities to provide for their social, economic and cultural well-being and health and safety and to provide for infrastructure that is regionally significant to the extent that it promotes sustainable management in accordance with the RMA.*
- (2) *To achieve patterns and sequencing of land-use with regionally significant infrastructure in the wider region so that:*
 - (a) *development does not result in adverse effects on the operation, use and development of regionally significant infrastructure.*

- 
- (b) *adverse effects resulting from the development or operation of regionally significant infrastructure are avoided, remedied or mitigated as fully as practicable.*
 - (c) *there is increased sustainability, efficiency and liveability.*

Policy 5.3.1 – Regional growth (Wider Region)

To provide, as the primary focus for meeting the wider region's growth needs, sustainable development patterns that:

- (1) *ensure that any*
 - (a) *urban growth; and*
 - (b) *limited rural residential development occur in a form that concentrates, or is attached to, existing urban areas and promotes a coordinated pattern of development;*
- (2) *encourage within urban areas, housing choice recreation and community facilities, and business opportunities of a character and form that supports urban consolidation;*
- (3) *promote energy efficiency in urban forms, transport patterns, site location and subdivision layout;*
- (4) *maintain and enhance the sense of identity and character of the region's urban areas; and*
- (5) *encourage high quality urban design, including the maintenance and enhancement of amenity values.*

Policy 5.3.2 – Development Conditions (Wider Region)

To enable development including regionally significant infrastructure which:

- (1) *ensure that adverse effects are avoided, remedied or mitigated, including where these would compromise or foreclose:*
 - (c) *the productivity of the region's soil resources, without regard to the need to make appropriate use of soil which is valued for existing or foreseeable future primary production, or through further fragmentation of rural land.*

Policy 5.3.3 – Management of development (Wider Region)

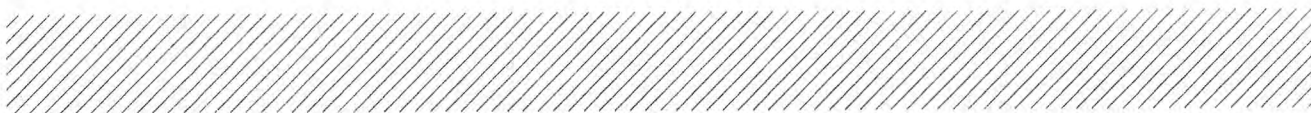
To ensure that substantial developments are designed and built to be of a high-quality, and are robust and resilient:

- (1) *through promoting, where appropriate, a diversity of residential, employment and recreational choices, for individuals and communities associated with the substantial development; and*
- (2) *where amenity values, the quality of the environment, and the character of an area are maintained, or appropriately enhanced.*

Policy 5.3.5 – Servicing development for potable water, and sewage and stormwater disposal (Wider Region)

Within the wider region, ensure development is appropriately and efficiently served for the collection, treatment, disposal or re-use of sewage and stormwater, and the provision of potable water, by:

- (1) *avoiding development which will not be served in a timely manner to avoid or mitigate adverse effects on the environment and human health; and*

- 
- (2) *requiring these services to be designed, built, managed or upgraded to maximise their ongoing effectiveness.*

Policy 5.3.6 – Sewerage, stormwater and potable water infrastructure (Wider Region)

Within the wider region:

- (1) *Avoid development which constrains the ongoing ability of the existing sewerage, stormwater and potable water supply infrastructure to be developed and used.*
- (2) *Enable sewerage, stormwater and potable water infrastructure to be developed and used, provided that, as a result of its location and design:*
 - (a) *the adverse effects on significant natural and physical resources are avoided, or where this is not practicable, mitigated; and*
 - (b) *other adverse effects on the environment are appropriately controlled.*
- (3) *Discourage sewerage, stormwater and potable water supply infrastructure which will promote development in locations which do not meet Policy 5.3.1.*

Policy 5.3.7 – Strategic land transport network and arterial roads (Entire Region)

In relation to strategic land transport network and arterial roads, the avoidance of development which:

- (1) *adversely affects the safe efficient and effective functioning of this network and these roads, including the ability of this infrastructure to support freight and passenger transport services; and*
- (2) *in relation to the strategic land transport network and arterial roads, to avoid development which forecloses the opportunity for the development of this network and these roads to meet future strategic transport requirements.*

Policy 5.3.8 – Land use and transport integration (Wider Region)

Integrate land use and transport planning in a way:

- (1) *that promotes:*
 - (a) *the use of transport modes which have low adverse effects;*
 - (b) *the safe, efficient and effective use of transport infrastructure, and reduces where appropriate the demand for transport;*
- (2) *that avoids or mitigates conflicts with incompatible activities; and*
- (3) *where the adverse effects from the development, operation and expansion of the transport system:*
 - (a) *on significant natural and physical resources and cultural values are avoided, or where this is not practicable, remedied or mitigated; and*
 - (b) *are otherwise appropriately controlled.*

Chapter 6 – Recovery and Rebuilding of Greater Christchurch

Objective 6.2.1 - Recovery framework

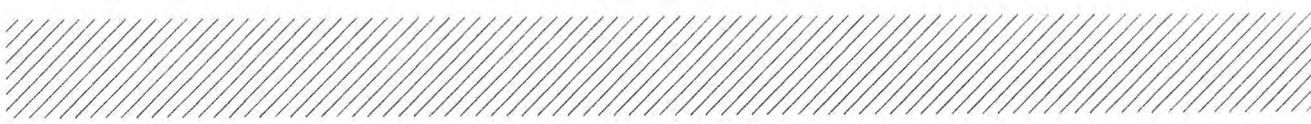
Recovery, rebuilding and development are enabled within Greater Christchurch through a land use and infrastructure framework that:

- (1) identifies priority areas for urban development within Greater Christchurch;*
- (2) identifies Key Activity Centres which provide a focus for high quality, and, where appropriate, mixed-use development that incorporates the principles of good urban design;*
- (3) avoids urban development outside of existing urban areas or greenfield priority areas for development, unless expressly provided for in the RPS;*
- (4) protects outstanding natural features and landscapes including those within the Port Hills from inappropriate subdivision, use and development;*
- (5) protects and enhances indigenous biodiversity and public space;*
- (6) maintains or improves the quantity and quality of water in groundwater aquifers and surface water bodies, and quality of ambient air;*
- (7) maintains the character and amenity of rural areas and settlements;*
- (8) protects people from unacceptable risk from natural hazards and the effects of sea-level rise;*
- (9) integrates strategic and other infrastructure and services with land use development;*
- (10) achieves development that does not adversely affect the efficient operation, use, development, appropriate upgrade, and future planning of strategic infrastructure and freight hubs;*
- (11) optimises use of existing infrastructure; and*
- (12) provides for development opportunities on Māori Reserves in Greater Christchurch.*

Objective 6.2.2 – Urban form and settlement pattern

The urban form and settlement pattern in Greater Christchurch is managed to provide sufficient land for rebuilding and recovery needs and set a foundation for future growth, with an urban form that achieves consolidation and intensification of urban areas, and avoids unplanned expansion of urban areas, by:

- (1) aiming to achieve the following targets for intensification as a proportion of overall growth through the period of recovery:*
 - (a) 35% averaged over the period between 2013 and 2016*
 - (b) 45% averaged over the period between 2016 to 2021*
 - (c) 55% averaged over the period between 2022 and 2028;*
- (2) providing higher density living environments including mixed use developments and a greater range of housing types, particularly in and around the Central City, in and around Key Activity Centres, and larger neighbourhood centres, and in greenfield priority areas and brownfield sites;*

- 
- (4) *providing for the development of greenfield priority areas on the periphery of Christchurch's urban area, and surrounding towns at a rate and in locations that meet anticipated demand and enables the efficient provision and use of network infrastructure;*
 - (5) *encouraging sustainable and self-sufficient growth of the towns of Rangiora, Kaiapoi, Woodend, Lincoln, Rolleston and Prebbleton and consolidation of the existing settlement of West Melton;*

Objective 6.2.3 – Sustainability

Recovery and rebuilding is undertaken in Greater Christchurch that:

- (1) *provides for quality living environments incorporating good urban design;*
- (2) *retains identified areas of special amenity and historic heritage value;*
- (3) *retains values of importance to Tangata Whenua;*
- (4) *provides a range of densities and uses; and*
- (5) *is healthy, environmentally sustainable, functionally efficient, and prosperous.*

Objective 6.2.4 – Integration of transport infrastructure and land use

Prioritise the planning of transport infrastructure so that it maximises integration with the priority areas and new settlement patterns and facilitates the movement of people and goods and provision of services in Greater Christchurch, while:

- (1) *managing network congestion;*
- (2) *reducing dependency on private motor vehicles;*
- (3) *reducing emission of contaminants to air and energy use;*
- (4) *promoting the use of active and public transport modes;*
- (5) *optimising use of existing capacity within the network; and*
- (6) *enhancing transport safety.*

Policy 6.3.1 – Development within the Greater Christchurch area

In relation to recovery and rebuilding for Greater Christchurch:

- (1) *give effect to the urban form identified in Map A, which identifies the location and extent of urban development that will support recovery, rebuilding and planning for future growth and infrastructure delivery;*
- (2) *give effect to the urban form identified in Map A (page 64) by identifying the location and extent of the indicated Key Activity Centres;*
- (3) *enable development of existing urban areas and greenfield priority areas, including intensification in appropriate locations, where it supports the recovery of Greater Christchurch;*
- (4) *ensure new urban activities only occur within existing urban areas or identified greenfield priority areas as shown on Map A, unless they are otherwise expressly provided for in the RPS;*
- (5) *provide for educational facilities in rural areas in limited circumstances where no other practicable options exist within an urban area; and*

- (6) *avoid development that adversely affects the function and viability of, or public investment in, the Central City and Key Activity Centres.*

Policy 6.3.2 – Development form and urban design

Business development, residential development (including rural residential development) and the establishment of public space is to give effect to the principles of good urban design below, and those of the NZ Urban Design Protocol 2005, to the extent appropriate to the context:

- (1) *Tūrangawaewae – the sense of place and belonging – recognition and incorporation of the identity of the place, the context and the core elements that comprise the place. Through context and site analysis, the following elements should be used to reflect the appropriateness of the development to its location:*

landmarks and features, historic heritage, the character and quality of the existing built and natural environment, historic and cultural markers and local stories.

- (2) *Integration – recognition of the need for well integrated places, infrastructure, movement routes and networks, spaces, land uses and the natural and built environment. These elements should be overlaid to provide an appropriate form and pattern of use and development.*

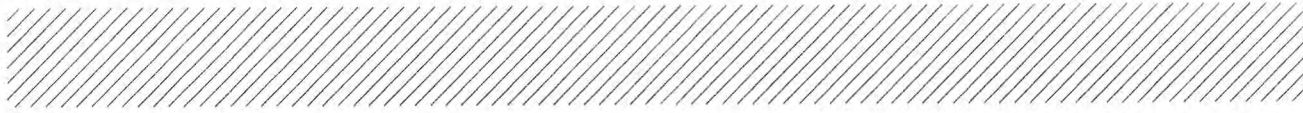
- (3) *Connectivity – the provision of efficient and safe high quality, barrier free, multimodal connections within a development, to surrounding areas, and to local facilities and services, with emphasis at a local level placed on walking, cycling and public transport as more sustainable forms of transport.*

- (4) *Safety – recognition and incorporation of Crime Prevention Through Urban Design (CPTED) principles in the layout and design of developments, networks and spaces to ensure safe, comfortable and attractive places.*

Policy 6.3.3 – Development in accordance with outline development plans

Development in greenfield priority areas and rural residential development is to occur in accordance with the provisions set out in an outline development plan or other rules for the area. Subdivision must not proceed ahead of the incorporation of an outline development plan in a district plan. Outline development plans and associated rules will:

- (1) *Be prepared as:*
- (a) *a single plan for the whole of the priority area; or*
 - (b) *where an integrated plan adopted by the territorial authority exists for the whole of the priority area and the outline development plan is consistent with the integrated plan, part of that integrated plan; or*
 - (c) *a single plan for the whole of a rural residential area; and*
- (2) *Be prepared in accordance with the matters set out in Policy 6.3.2;*
- (3) *To the extent relevant show proposed land uses including:*
- (a) *Principal through roads, connections with surrounding road networks, relevant infrastructure services and areas for possible future development;*
 - (b) *Land required for community facilities or schools;*
 - (c) *Parks and other land for recreation;*
 - (d) *Land to be used for business activities;*

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- (e) *The distribution of different residential densities, in accordance with Policy 6.3.7;*
 - (f) *Land required for stormwater treatment, retention and drainage paths;*
 - (g) *Land reserved or otherwise set aside from development for environmental, historic heritage, or landscape protection or enhancement;*
 - (h) *Land reserved or otherwise set aside from development for any other reason, and the reasons for its protection from development;*
 - (i) *Pedestrian walkways, cycleways and public transport routes both within and adjoining the area to be developed;*
- (4) *Demonstrate how Policy 6.3.7 will be achieved for residential areas within the area that is the subject of the outline development plan, including any staging;*
 - (5) *Identify significant cultural, natural or historic heritage features and values, and show how they are to be protected and/or enhanced;*
 - (6) *Document the infrastructure required, when it will be required and how it will be funded;*
 - (7) *Set out the staging and co-ordination of subdivision and development between landowners;*
 - (8) *Demonstrate how effective provision is made for a range of transport options including public transport options and integration between transport modes, including pedestrian, cycling, public transport, freight, and private motor vehicles;*
 - (9) *Show how other potential adverse effects on and/or from nearby existing or designated strategic infrastructure (including requirements for designations, or planned infrastructure) will be avoided, remedied or appropriately mitigated;*
 - (10) *Show how other potential adverse effects on the environment, including the protection and enhancement of surface and groundwater quality, are to be avoided, remedied or mitigated;*
 - (11) *Show how the adverse effects associated with natural hazards are to be avoided, remedied or mitigated as appropriate and in accordance with Chapter 11 and any relevant guidelines; and*
 - (12) *Include any other information that is relevant to an understanding of the development and its proposed zoning.*

Policy 6.3.5 – Integration of land use and infrastructure

Recovery of Greater Christchurch is to be assisted by the integration of land use development with infrastructure by:

- (1) *Identifying priority areas for development to enable reliable forward planning for infrastructure development and delivery;*
- (2) *Ensuring that the nature, timing and sequencing of new development are co-ordinated with the development, funding, implementation and operation of transport and other infrastructure in order to:*
 - (a) *optimise the efficient and affordable provision of both the development and the infrastructure;*
 - (b) *maintain or enhance the operational effectiveness, viability and safety of existing and planned infrastructure;*
 - (c) *protect investment in existing and planned infrastructure; and*

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- (d) ensure new development does not occur until provision for appropriate infrastructure is in place;
 - (3) Providing that the efficient and effective functioning of infrastructure, including transport corridors, is maintained, and the ability to maintain and upgrade that infrastructure is retained;
 - (4) Only providing for new development that does not affect the efficient operation, use, development, appropriate upgrading and safety of existing strategic infrastructure, including by avoiding noise sensitive activities within the 50dBA Ldn airport noise contour for Christchurch International Airport, unless the activity is within an existing residentially zoned urban area, residential greenfield area identified for Kaiapoi, or residential greenfield priority area identified in Map A (page 64); and
 - (5) Managing the effects of land use activities on infrastructure, including avoiding activities that have the potential to limit the efficient and effective, provision, operation, maintenance or upgrade of strategic infrastructure and freight hubs.

Policy 6.3.7 – Residential location, yield and intensification

In relation to residential development opportunities in Greater Christchurch:

- (1) Subject to Policy 5.3.4, residential greenfield priority area development shall occur in accordance with Map A. These areas are sufficient for both growth and residential relocation through to 2028.
- (2) Intensification in urban areas of Greater Christchurch is to be focused around the Central City, Key Activity Centres and neighbourhood centres commensurate with their scale and function, core public transport routes, mixed-use areas, and on suitable brownfield land.
- (3) Intensification developments and development in greenfield priority areas shall achieve at least the following residential net densities averaged over the whole of an ODP area (except where subject to an existing operative ODP with specific density provisions):
 - (a) 10 household units per hectare in greenfield areas in Selwyn and Waimakariri District;
- (4) Intensification development within Christchurch City to achieve an average of:
 - (a) 50 household units per hectare for intensification development within the Central City;
 - (b) 30 household units per hectare for intensification development elsewhere.
- (5) Provision will be made in district plans for comprehensive development across multiple or amalgamated sites.
- (6) Housing affordability is to be addressed by providing sufficient intensification and greenfield priority area land to meet housing demand during the recovery period, enabling brownfield development and providing for a range of lot sizes, densities and appropriate development controls that support more intensive developments such as mixed use developments, apartments, townhouses and terraced housing.



Canterbury Regional Land Transport Strategy

Objectives

- *Ensure a resilient, environmentally sustainable and integrated transport system*
- *Increase transport safety for all users*
- *Protect and promote public health*
- *Assist economic development*
- *Improve levels of accessibility for all.*

Outcomes

- *Reduced greenhouse gas emissions from use of the domestic transport system.*
- *Improved resilience of the transport network to infrastructure damage or emergencies.*
- *Improved resilience of the transport system to external changes.*
- *Improved land use and transport integration.*
- *Reduction in fatal and serious injuries for all modes.*
- *Improved personal safety and reduced security risks to all transport users.*
- *Improved health from increase in time spent travelling by active means.*
- *Increased proportion of the population travelling by active means.*
- *Reduced community exposure to vehicle pollutants, noise and vibration.*
- *Improved journey time reliability on the strategic transport network.*
- *Increased energy efficiency per trip.*
- *Regional and inter-regional journey time reliability on key freight routes is maintained.*
- *Freight hubs are protected and maintained.*
- *Connectedness is enhanced.*
- *Increased travel choices for households to access urban and suburban centres.*
- *Improved mobility for the transport disadvantaged.*



Proposed Canterbury Land and Water Plan

- 3.3 *Nationally and regionally significant infrastructure is enabled and is resilient and positively contributes to economic, cultural and social wellbeing through its efficient and effective operation, on-going maintenance, repair, development and upgrading.*
- 3.5 *Land uses continue to develop and change in response to socio-economic and community demand.*
- 3.8A *High quality fresh water is available to meet actual and reasonably foreseeable needs for community drinking water supplies.*
- 3.11 *Water is recognised as an enabler of the economic and social wellbeing of the region.*
- 3.23 *Soils are healthy and productive, and human-induced erosion and contamination are minimised.*
- 3.24 *All activities operate at “good environmental practice “ or better to optimise efficient resource use and protect the region’s fresh water resources from quality and quantity degradation.*

Waimakariri District Plan

Chapter 11 - Utilities and Traffic Management

Objective 11.1.1

Utilities that maintain or enhance the community's social, economic and cultural wellbeing, and its health and safety.

Policy 11.1.1.1

A utility should:

- a. contribute to a safe environment;*
- b. maintain or enhance public health;*
- c. promote efficient use of resources and efficient development of the utility, so that resources are conserved and used in a sustainable manner;*
- d. have regard to cross boundary issues where the utility or the service provided by the utility crosses the territorial boundary;*
- e. where it is necessary to service new development, be paid for by the developer, or as a condition of consent for the development; and*
- f. maintain and enhance social wellbeing.*

Policy 11.1.1.2

Every new site within a design catchment of an existing or proposed utility should connect to the utility wherever possible.

Policy 11.1.1.3

Subdivision and development should not proceed within areas that do not have access to appropriate utilities, or where the utilities are operating at full capacity or where these subdivisions or developments are likely to adversely affect the planned expansion of those utilities. Subdivision and development can proceed if the existing utilities are upgraded to provide the appropriate capacity for the health and safety of the present and future population, or appropriate alternatives are provided. Appropriate alternative systems should, as a minimum:

- a. meet the current environmental and engineering design standards prescribed for the present utilities; and*
- b. be capable of integration with existing utilities.*

Policy 11.1.1.4

A road hierarchy shall be maintained and protected to enable the District to function with minimal conflict between activities, traffic, and people.

Policy 11.1.1.5

New developments and activities in relation to their traffic generation characteristics should:

- a. locate on or establish primary access to an appropriate level of road within the road hierarchy;*