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PRIVATE PLAN CHANGE, OCEAN
RIDGE DEVELOPMENT AREA –
KAIKŌURA



PRELIMINARY SITE
INVESTIGATION –
CONTAMINATION

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PRIVATE PLAN CHANGE, OCEAN
RIDGE DEVELOPMENT AREA –
KAIKŌURA

PRELIMINARY SITE INVESTIGATION - CONTAMINATION

Project No.	CH01912	Approved for Issue	
Version No.	1	Name	Sean Finnigan
Status	Final	Signature	
Authors	S Gladwin	Date	17 March 2025
Reviewer	S Finnigan		

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SUMMARY

This report presents the results of a Preliminary Site Investigation (PSI) undertaken for the proposed plan change request to the operative Kaikōura District Plan for the subject site located at Ocean Ridge Subdivision, Kaikōura.

The subject site comprises multiple titles and development areas (some outside of the scope of this Plan Change report), and the subject development area is best broken down into four separate 'neighbourhood' designations for the purpose of this report. These 'neighbourhood' area designations being:

- (i) Area 'H'- Located at the toe of side slopes associated with an existing (central) north-east to south-west trending ridgeline, and extending to a low lying area, adjacent to State Highway 1. Located in the southern part of the site (approximately 5.4 ha),
- (ii) Area 'F'- south- the low-lying area adjacent to the existing golf course, located in the western part of the site (approximately 16.6 ha),
- (iii) Area 'C'- slightly elevated area located in the south-western part of the site (approximately 4.0 ha),
- (iv) Area 'G'- adjacent to the existing railway line, located in the north-western part of the site. The area encompasses the western side slopes and the ridge associated with a northeast-southwest trending ridgeline (approximately 32.0 ha).

The plan change is seeking to alter the anticipated land use activities of various areas within the Ocean Ridge Outline Development Plan (see Section 1.0 of this report).

The approximate location and extent of the subject site, and the various development 'neighbourhood' area designations, are shown on the appended Fraser Thomas Ltd drawings CH01912-G-01.

This investigation has been managed, reviewed and approved by a Suitably Qualified and Experienced Practitioner (SQEP), as defined in the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS).

In general, no potentially hazardous activities, as described in the current edition of MfE's Hazardous Activities and Industries List (HAIL), were observed across the majority of the proposed plan change area during the desktop study and site walkover.

However, a number of localised potential HAIL activities, which may be potential sources of soil contamination, have been identified and summarised in Table 1 of this report.

In our opinion, under Regulation 5(7), the NESCS does not apply to the majority of the plan change area, due to no obvious HAIL activities being identified.

The NESCS may however apply to the localised potential HAIL activities listed in Table 1 of this report.

Hence, a Detailed Site Investigation (DSI), will be required to be undertaken in support of any proposed future subdivision application in order to confirm soil contamination, if any, the associated risk to human health and/or the environment and any NESCS consenting requirements.

It is recommended that these potential HAIL areas be further investigated and remediated, as necessary, as part of enabling (pre-construction) works prior to any bulk earthworks or other soil disturbance activities.

Overall, the site is considered suitable to be rezoned for future residential development, provided the potential/actual localised contamination issues identified are appropriately investigated and managed through appropriate remediation or controls during site development.

**NATIONAL ENVIRONMENTAL STANDARD FOR ASSESSING AND MANAGING
CONTAMINANTS IN SOIL TO PROTECT HUMAN HEALTH**

PRIVATE PLAN CHANGE

**OCEAN RIDGE DEVELOPMENT AREA
KAIKŌURA**

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PRELIMINARY SITE INVESTIGATION - CERTIFYING STATEMENT

I, Dr Sean Matthew Finnigan of Fraser Thomas Ltd certify that:

This Preliminary Site Investigation meets the requirements of the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health, NESCS) Regulations 2011 because it has been:

- a. done by suitably qualified and experienced practitioners, and
- b. reported on in accordance with the current edition of Contaminated land Management Guidelines No 1 – Reporting on Contaminated Sites in New Zealand, and
- c. the report is certified by a Suitably Qualified and Experienced Practitioner.

This Preliminary Site Investigation has found:

- a. The area subject to the proposed plan change was previously part of a larger piece of land that is historically inferred to have largely been used for rural activity, generally comprising sheep farming,
- b. The current land use for the majority of the proposed plan change area (Areas F, C and G) generally comprises paddocks vegetated with grass. The land use in Area H comprises an existing residential subdivision, including completed residential buildings, vacant lots and associated stormwater management infrastructure.
- c. The NESCS does not apply to the majority of the plan change area, due to no obvious HAIL activities being identified.
- d. The NESCS may however apply to the localised potential HAIL activities listed in Table 1.
- e. The localised potential HAIL activities should be investigated as part of a Detailed Site Investigation (DSI), at subdivision consent stage, in order to confirm soil contamination, if any, the associated risk to human health and/or the environment and any NESCS consenting requirements.

This investigation has been undertaken by the following staff:

- a. Dr Sean Finnigan, BE, MEnv.Sci, PhD; CPEng, M. ALGA, M.WasteMINZ, CEnvP-CL (25 yrs CL experience)
- b. Sam Gladwin, BSc, M.ALGA, M.WasteMINZ (6 yrs CL experience).

Further evidence of these staff' qualifications and experience can be provided on request.

Signed:



Date: 17 March 2025



PRIVATE PLAN CHANGE

OCEAN RIDGE DEVELOPMENT AREA

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PRELIMINARY SITE INVESTIGATION – CONTAMINATION

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PRIVATE PLAN CHANGE

OCEAN RIDGE DEVELOPMENT AREA KAIKŌURA

CARGILL STATION LTD

PRELIMINARY SITE INVESTIGATION – CONTAMINATION

1.0 INTRODUCTION

This report presents the results of a Preliminary Site Investigation (PSI) undertaken for the proposed plan change request to the operative Kaikōura District Plan for the subject site located at Ocean Ridge Subdivision, Kaikōura.

The subject site comprises multiple titles and development areas (some outside of the scope of this Plan Change report), and the subject development area is best broken down into four separate ‘neighbourhood’ designations for the purpose of this report. These ‘neighbourhood’ area designations being:

- | | | |
|-------|-----------|---|
| (i) | Area ‘H’- | Located at the toe of side slopes associated with an existing (central) north-east to south-west trending ridgeline, and extending to a low lying area, adjacent to State Highway 1. Located in the southern part of the site (approximately 5.4 ha), |
| (ii) | Area ‘F’- | the low-lying area adjacent to the existing golf course, located in the south-western part of the site (approximately 16.6 ha), |
| (iii) | Area ‘C’- | slightly elevated area located in the south-western part of the site (approximately 4.0 ha), |
| (iv) | Area ‘G’- | adjacent to the existing railway line, located in the north-western part of the site. The area encompasses the western side slopes and the ridge associated with a northeast-southwest trending ridgeline (approximately 32.0 ha). |

The plan change is seeking to alter the anticipated land use activities of various areas within the Ocean Ridge Outline Development Plan, namely:

- Areas ‘C’ and ‘G’ will be retained for residential purposes but with an overall increase in residential density;
- portions of Area ‘H’ and Kekenō Park will be repurposed from their respective low density residential and utility uses to enable an overall increase in the land identified on the Outline Development Plan as ‘Mixed Use Area’;
- portions of Area ‘F’ identified on the Outline Development Plan as ‘Open Space / Grazing’ will be repurposed for residential, community and commercial uses.

The approximate location and extent of the subject site, and the various development 'neighbourhood' area designations, are shown on the appended Fraser Thomas Ltd drawing CH01912-G-01. The overall masterplan for the proposed development is shown on drawing CH01912-G-02.

There are also existing areas within the Ocean Ridge development, identified as Areas A, B D(i) and E, which have been previously subject to subdivisional development. These areas are outside the scope of the Plan Change. These areas are also indicated on drawings CH01912-G-01 and CH01912-G-02.

This investigation involved a desktop study, site walkover and reporting associated with potential land contamination issues.

The format of this report is as follows:

- Rationale, objectives and scope of work.
- Investigation methodology.
- Site details.
- Desktop study and site walkover results.
- Discussion, conclusions and recommendations.
- Site plans, representative photographs and other relevant information in appendix form.

This investigation has been managed, reviewed and approved by a Suitably Qualified and Experienced Practitioner (SQEP), as defined in the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS).

2.0 RATIONALE, OBJECTIVES AND SCOPE OF WORK

The main rationale and objectives for this investigation were:

- To identify the main actual or potential contamination issues, if any, due to current and historical land use at the site.
- To confirm that the site is suitable or can be made suitable for the proposed rezoning.

3.0 INVESTIGATION METHODOLOGY

The methodology used for this site assessment is summarised below:

1. Desktop study involving review of existing historical information for the subject site including aerial photographs, certificates of title, and regional council public databases.
2. Site walkover investigation of the subject site, with a visual appraisal to identify any potentially contaminated areas or contamination sources.
3. Preparation of a PSI report including the results of the desktop study, site walkover survey and conclusions and recommendations.
4. Provision of site plans, relevant documentation and representative photographs as appendices to this report.

4.0 SITE DETAILS

4.1 LOCATION AND LAND USE

The site comprises approximately 58ha of land within the Ocean Ridge Development Area, Kaikōura located west of Kaikōura Township between State Highway 1 and Green Lane/Ludstone Road.

Completed residential Stages 1, 2, 3, and Proposed 4 of the Ocean Ridge Subdivision bisect the site.

Kaikoura Golf Course is located to the south of Area F.

The main northern trunk railway line runs along the north and north-western boundaries of the site.

The land use surrounding the Ocean Ridge Development Area is generally rural.

4.2 GEOLOGY

The results of a geotechnical investigation undertaken in support of the plan change, in general, indicate that the surficial soils underlying the site are likely to comprise:

- (a) Holocene aged marine sediments (on the lower elevation, southern parts, of the site),
- (b) Holocene aged alluvial sediments (on the lower elevation, southern and south-western, parts of the site),
- (c) colluvial and landslide deposits (on the side slopes of the site) inferred to be of Holocene age.

The upper sloping parts of the site are also generally underlain by a layer of residual soils, which are inferred to be weathering products of underlying sandstone and limestone rock, inferred to be of the Seymour Group of Cretaceous age.

4.3 HYDROLOGY

4.3.1 Surface Water

The Kowhai River is located approximately 1.5km to the west of the site.

Existing stormwater management devices, including conveyance channels, a wet basin and dry basin are also located at the site.

4.3.2 Groundwater

The depth to groundwater, as recorded during geotechnical investigations, varied across the proposed development areas.

Generally, the depth to groundwater in the low-lying parts of Areas F and H ranged between approximately 2.8m and 2.9m below the existing ground surface.

Groundwater was generally not encountered at the locations of the hand augered boreholes and machine excavated test pits put down in the higher elevation parts of Areas C, F, G and H.

A more detailed description of the depth to groundwater at the site is presented in a separate geotechnical report being prepared by Fraser Thomas in support of the plan change.

5.0 DESKTOP STUDY AND WALKOVER SURVEY RESULTS

The results of the desktop study and the site walkover survey are summarised in this section and illustrated in the attached site walkover plan (drawing CH01912-E-01), aerial photographs (Appendix B), Listed Land Use Register (Appendix C) and site photographs (Appendix D). Throughout the site walkover survey, a visual assessment was used to classify any foreign materials as particular contaminants, without any formal identification. Hence, reference to a specific contaminant in the survey results should essentially be read as “suspected contaminant”, unless otherwise stated.

5.1 AERIAL PHOTOGRAPHS

Historical aerial photographs sourced from the Environment Canterbury and Retrolens websites were reviewed as part of the desktop study.

5.1.1 1942 to mid-2000s Aerials (Pre-Ocean Ridge Subdivision)

The site was generally vacant from at least 1942, vegetated with grass and appears to have been used for dryland pasture (i.e. sheep farming).

A railway line is under construction along the north site boundary.

Three structures, inferred to be farm building/sheds are present within Area H, with a fourth structure visible from 1961.

An inferred farmhouse, woolshed and stockyard, inferred to be associated with the aforementioned sheep farming, are located to the east of, but outside the boundary of Area H.

Features in the northern part of Area F, that look similar to stockpiled soils, are understood to be debris from a pre-1940s landslide.

In 1961, a fourth shed has been constructed in Area H.

Activity, inferred to be possible cropping can be seen in the western corner of Area H. The image quality is poor, but the activity appears to be closer in nature to forage type crops rather than intensive horticultural activity. Possible rows of hay bales can be seen to the south-east of the cropping area.

Kaikoura Golf Club has also been established to the south of Area F.

No obvious sheep-dip structures were observed within Areas C, F, H and G.

In 1980, three of the shed ins Area H appear to have been demolished, and implement shed has been constructed within Area F.

5.1.2 Mid-2000s to Latest Aerials (Post-Ocean Ridge Subdivision)

In 2012, the bulk earthworks and roading infrastructure for Stages 1, 2 and 3 (including Area H) of Ocean Ridge Subdivision have been completed and residential construction has begun.

The last remaining inferred farm buildings/shed within Area H has been demolished. New residential lots and a stormwater conveyance channel have been constructed in the vicinity of the former building locations.

Two stockpile staging areas, each comprising multiple stockpiles are located within Areas C and G. The stockpiles within both areas are inferred to be excess soils (either imported or excavated) associated with bulk earthworks for Stages 1, 2 and 3. Inferred fly tipping of construction materials can also be seen in the vicinity of the stockpiles in Area G.

One, possibly two implement sheds, farmyard and stockyard have been constructed along the southern boundary of Area F. Various items, inferred to be building products are being stored on the ground.

A small building has also been constructed to the east of the farm yard area.

In the latest aerial, one of the sheds and part of the farm yard area have been removed and replaced with a larger building.

The land use within the rest of the plan change area generally remains vegetated with grass.

5.2 COUNCIL RECORDS

Given the rural and undeveloped nature of the plan change site, the property files have not been reviewed as part of this investigation.

5.3 LISTED LAND USE REGISTER (LLUR)

None of the properties making up the subject site are currently listed as potentially contaminated in the Environment Canterbury (ECan) Listed Land User Register (LLUR).

5.4 SITE WALKOVER RESULTS

5.4.1 General

A site walkover of the subject site was undertaken by a FTL Engineering Geologist experienced in contaminated site investigations on 4 October 2024.

The approximate location and extent of the subject site, development areas and site features are shown on the appended Fraser Thomas Ltd drawings CH01912-E-01.

The visual appraisals are detailed in the following sections.

5.4.2 Area H (Southern Part of the Site)

The Area H development area is located in the southern part of the Ocean Ridge subdivision, and has been previously developed with some residential lots, roading and stormwater management infrastructure.

Kersage Drive, Ludley Drive and Fidele Lane are located within Areas H.

The topography within Area H area, south of Ludley Drive, is predominantly flat (with localised slope angles of between approximately 6° to 9° to the horizontal).

The topography, north of Ludley Drive, generally slopes gently to moderately with a southerly aspect, at slope angles ranging between approximately 2° and 16° to the horizontal.

Several existing modern residential dwellings are located between Ludley Drive and Kersage Drive.

A stormwater conveyance channel, wet basin and dry basin are located in the western and southern parts of Area H.

The remainder of Area H was generally vegetated with grass, at time of the investigation reported herein.

There were no potentially hazardous activities, as described in the current edition of MfE's Hazardous Activities and Industries List (HAIL), observed during the site walkover of Area H.

5.4.3 Area F (South-Western Part of the Site)

The Area F development area is located in the south-western part of Ocean Ridge subdivision, adjacent to the Kaikōura Golf Club golf course and the Kowhai River, and on the southern side of an existing railway embankment. An existing river access track, trending east to west, roughly bisects this development area.

The topography within Area F, north of the access track, generally slopes with a southerly aspect at slope angles of between approximately 6° and 12° to the horizontal. This area is also pastoral farmland, and is vegetated with paddock grass. Several localised ephemeral streams and drains appear to have been cut into the slopes in this area, and appear to be draining towards an existing pond/swamp, located in the eastern part of Area F.

Several culverts constructed from polyethylene (PE) and concrete pipe were located within these drains. No asbestos containing material was observed in any of the pipes.

The topography within the Area F development area, south of the river access track, is generally flat pastoral farmland, and is vegetated with paddock grass. An existing shallow watercourse, with an associated swampy margin, is located along the eastern edge of this development area.

It is understood that Area F is currently leased to Bruce Ensor, a Kaikoura based builder, who uses the site to graze sheep, and as a storage yard.

An existing (circa 1980) timber framed implement shed, with profiled metal cladding, is located in this part of Area F. The implement shed is currently being used to store building materials, mostly comprising bulk storage of timber formwork, timber offcuts and profiled metal cladding. Both H1.2 and H3.2 treated timber was observed in timber offcut stockpiles.

The leaching of Chromated Copper Arsenate (CCA) is a known potential source of soil contamination from the storage of treated timber on bare ground, and could potentially fall within HAIL I *“Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment”*.

However, it should be noted that in this case, the potential for soil contamination is considered low for the following reasons:

- The majority of the stored timber comprises what appears to be non-treated form work,
- The treated timber offcuts do not appear to be in a deteriorated condition, and
- The implement shed generally provides good protection from rain.

An existing farm yard area (circa 2012) comprising an implement shed and stockyard are located along the southern boundary of Area F. The following features of note were observed in this area:

- Various building materials, generally comprising concrete blocks, reinforcing steel and timber are being stored on pallets or raised above the ground,
- A 600L spray tank is located in the implement shed. It is understood that the tank held the herbicide “Tordon™”, and is used to control gorse and brush along the northern boundary of Area F.,
- An old 208L drum of diesel engine oil, with an attached pumping apparatus is located in the implement shed. The drum and pump do not appear to have been used for a significant amount of time,
- At least three old 208L drums, which appear to have been used as makeshift burn pits.
- A trailer holding two empty 1,000L IBC’s. labelled as originally containing MasterRoc SA 160 are located next to the stockyards. MasterRoc SA 160 is a liquid hardening additive for concrete (it should be noted that this is most likely used on building sites, and not within Area F).

A small burn pile, approximately 4m to 5m in diameter, is located to the west of the implement shed. Based on site observations, the burn pile appears to have been used to burn vegetation. No obvious man-made materials were observed.

As seen in the latest aerial, one of the sheds and part of the farm yard area have been removed and replaced with a larger building. The building is understood to be a workshop, and is surrounded by concrete pavement. At the time of the site walkover, the gate was locked and this part of the site could not be accessed. A container with hazchem signage, a small backpack sprayer and two small (approx. 20L) chemical containers were observed, all being stored on the concrete pavement, which is in new condition.

A small building, housing a municipal water treatment facility, is located to the east of the farm yard area. Signage indicates that Sodium Hypochlorite is used in the facility.

Some of the foregoing activities overserved along the southern boundary of Area F, could potentially fall within the following HAIL definitions:

- HAIL A10 *"Persistent pesticide bulk storage or use, including sport turfs, market gardens, orchards, glass houses or spray sheds"*(600L Spray Tank, chemical storage associated with workshop),
- HAIL A17 *"Storage tanks or drums for fuel, chemicals or liquid waste"*(208L drum of diesel engine oil),
- HAIL I *"Any other land..."* (makeshift oil drum burn pits and burn pile).

However, it should be noted that the most recent draft Master Plan provided, dated February 2025, indicates that the proposed future land use is generally to remain unchanged, and is to be used as a storage area and maintenance facility (i.e. no residential activity is proposed for this part of Area F).

It should also be noted that the active ingredients in Tordon™ are Picloram and Aminopyralid, which have field half-life degradation times of less than two months, and hence are not considered to be persistent pesticides, as defined under the Stockholm Convention on Persistent Organic Pollutants (as adopted by MfE). They would be expected to degrade to low or non-detectable concentrations within a few months after application.

5.4.4 Area C (South-Western Part of the Site)

The Area C development area is located in the south-western part of Ocean Ridge subdivision, abutting Area F. Area C is generally sited on the crest of a north-west to south-east trending ridgeline. The proposed development area is located to the west of Ocean Ridge Drive, and is located to south side of the existing railway line.

The topography within Area C generally comprises a roughly flat plateau, bordered on the south-western side by a steep (up to approximately 38°) side slope, and on the northeastern side by gentle to moderately sloping slopes, of between approximately 9° and 18°. An existing incised gully, with shallow creek, is located at the toe of the north-east facing side slope.

Several large stockpiles, were observed on the plateau area, generally in the same location as those identified in the historical aerial photographs.

In general, the stockpiles were generally observed to comprise the following materials:

- Sandy clayey silts, similar in nature to the surficial soils encountered in the geotechnical test pits put down across the plan change area by Fraser Thomas. These soils constitute the majority of the stockpiled volume, vegetated with grass, and are inferred to have been stockpiled sometime before July 2012 (first date observed in aerials),
- natural fine to coarse greywacke gravels with some cobbles (circa 2016),
- natural crushed limestone (latest materials to be stockpiled).

A machine excavated test pit was put down by Fraser Thomas Ltd, through the sandy clayey silt stockpile during a subsequent geotechnical investigation. The stockpile was confirmed to generally comprise sandy clayey silts. A layer of sandy gravels, inferred to be imported sandy gravels was encountered beneath the sandy clayey silts.

The materials generally appear to be 'clean'; however, isolated instances of concrete fragments and tiles were observed within the crushed limestone.

The stockpiles are inferred to be a mix of excess site-won and imported materials, associated with bulk earthworks in previous stages of the Ocean Ridge Subdivision.

In the northern part of the stockpile area, the following features were observed:

- Three burn piles, in which tree stumps and process timber appear to have been burnt,
- Several smaller stockpiles of concrete, asphalt and various other man-made materials including ceramic pipes, timber and PE hose,
- A shallow offal pit with evidence of several sheep carcasses.

The stockpiled soils, offal pit and burn piles should be considered potential HAIL I.

There were no hazardous HAIL activities, observed over the remainder of Area C, which generally comprised paddocks vegetated with grass.

5.4.5 Area G (Northern and North-Western Parts of the Site)

The Area G development area is located in the north-western and northern parts of Ocean Ridge subdivision, and is generally sited on the flank and crest of a north-east to south-west trending ridgeline. The existing railway line generally extends along the western boundary of Area G.

The side slopes associated with the ridgeline generally slope at slope angles ranging between approximately 15° and 28° to the horizontal. The area between the toe of the side slopes and the western site boundary is generally flatter, and slopes at between approximately 2° and 7° to the horizontal.

A small burn pile, approximately 5m to 6m in diameter, is located to in the south-western part of Area G. Based on site observations, the burn pile appears to have been used to burn vegetation and some general rubbish.

Several large stockpiles, were also observed in the south western part of Area G, generally in the same location as those identified in the historical aerial photographs.

In general, the stockpiles were generally inferred to comprise the following materials:

- Sandy clayey silts. These soils constitute the majority of the stockpiled volume, are vegetated with grass and are inferred to have been stockpiled sometime before July 2012 (first date observed in aerials),
- A large stockpile of man-made materials comprising concrete, asphalt, timber, and plasterboard

A machine excavated test pit was put down by Fraser Thomas Ltd, through one of the inferred sandy clayey silt stockpiles. The stockpile was confirmed to generally comprise sandy clayey silts, intermixed with topsoil and trace amounts of concrete and asphalt.

The stockpiles are inferred to be a mix of excess site-won and imported materials, associated with bulk earthworks in previous stages of the Ocean Ridge Subdivision.

The stockpiled soils, man-made materials and burn pile should be considered potential HAIL I.

There were no hazardous HAIL activities, observed over the remainder of Area G, which generally comprised paddocks vegetated with grass.

6.0 DISCUSSION

6.1 SUMMARY OF KEY FINDINGS

The area subject to the proposed plan change was previously part of a larger piece of land that is historically, inferred to have largely been used for rural activity, generally comprising sheep farming.

In the early to mid-2000s, the large piece of land was begun to be subdivided to form what is now the Ocean Ridge Subdivision.

The current land use for the majority of the proposed plan change area (Areas F, C and G) generally comprises paddocks vegetated with grass.

The land use in Area H comprises an existing residential subdivision, including completed residential buildings, vacant lots and associated stormwater management infrastructure.

In general, no potentially hazardous activities, as described in the current edition of MfE's Hazardous Activities and Industries List (HAIL), were observed across the majority of the proposed plan change area during the desktop study and site walkover.

However, a number of localised potential HAIL activities, which could be potential sources of soil contamination, have been identified, and are summarised in Table 1.

The approximate locations and extents of the potential HAIL activities are shown on drawing CH01912-E-01.

Table 1: Summary of potential HAIL activities identified during the desktop study and site walkover

HAIL Activity	Site observations	Meets HAIL criteria*
A10 - Persistent pesticide bulk storage or use, including sport turfs, market gardens, orchards, glass houses or spray sheds	600L spray tank used to hold Tordon™ herbicide located in and implement shed along southern boundary of Area F.	Yes
A17 - Storage tanks of drums for fuel, chemicals or liquid waste	A 208L drum of diesel engine oil, with an attached pumping apparatus is located within the implement shed along southern boundary of Area F.	Yes
	Chemical storage in workshop area along southern boundary of Area F.	Yes
I - Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment	Storage of various treated timber offcuts within implement shed with Area F	Possibly – Leaching of CCA treated timber stored on bare ground is a known source of localised soil contamination. However, the timber is protected from the elements is and not in a deteriorated condition.
	Burn pits/piles (Areas C, F and G), some of which were observed to have been used to dispose of general rubbish	Potentially yes (possible HAIL I)
	Stockpiled soils and man-made materials (Areas C and G)	Potentially yes (possible HAIL I)
	Offal pit (Area C)	Potentially yes (possible HAIL I)

* As defined in MfE's 2023 Hazardous Activities and Industries List guidance document

6.2 CONCEPTUAL SITE MODEL

A Conceptual Site Model (CSM) is a description of a site including the environmental setting, geological, hydrogeological and soil characteristics together with the nature and distribution of any contaminants (i.e. the source). Potentially exposed populations are identified and examination of exposure pathways is undertaken in order to determine whether a contaminant can reach and be taken up by a receptor (i.e. humans) in such quantities as to be harmful.

As discussed in Section 6.1, several localised potential soil contamination sources, were identified during this investigation that theoretically could have resulted in localised soil contamination at the site.

Potential receptors are site workers during any future earthworks and future residents who could be exposed to contaminated soil. Terrestrial and aquatic ecosystems should also be considered as potential receptors.

It should be noted that the potential soil contamination sources, identified during this investigation are the result of visual inspection only, and soil sampling would be required to confirm any soil contamination if any, and the associated risk to human health and the environment.

6.3 NESCS REQUIREMENTS

The NESCS governs a number of activities, including soil sampling, soil disturbance, subdivision and changes of land use on potentially contaminated land in New Zealand. In general, the rules of the NESCS apply to sites on which it is “more likely than not” that a HAIL (Hazardous Activities and Industries List) activity has occurred or is occurring Regulation 5(7).

In our opinion, under Regulation 5(7), the NESCS does not apply to the majority of the plan change area, due to no obvious HAIL activities being identified.

The NESCS may however apply to the localised potential HAIL activities listed in Table 1.

Hence, a Detailed Site Investigation (DSI), will be required to be undertaken in support of any proposed future subdivision application in order to determine whether it could be undertaken as a Controlled or Restricted Discretionary activity.

It is recommended that these potential/actual HAIL areas be further investigated and remediated, as necessary, as part of enabling (pre-construction) works prior to any bulk earthworks or other soil disturbance activities.

7.0 CONCLUSIONS AND RECOMMENDATIONS

This preliminary site investigation has found that the area subject to the proposed plan change was previously part of a larger piece of land that is historically, inferred to have largely been used for rural activity, generally comprising sheep farming. In the early to mid-2000s, the large piece of land was begun to be subdivided to form what is now the Ocean Ridge Subdivision.

The current land use for the majority of the proposed plan change area (Areas F, C and G) generally comprises paddocks vegetated with grass. The land use in Area H comprises an existing residential subdivision, including completed residential buildings, vacant lots and associated stormwater management infrastructure.

In general, no potentially hazardous activities, as described in the current edition of MfE's Hazardous Activities and Industries List (HAIL), were observed across the majority of the proposed plan change area during the desktop study and site walkover.

However, a number of localised potential HAIL activities, which may be potential sources of soil contamination, have been identified and summarised in Table 1 of this report.

In our opinion, under Regulation 5(7), the NESCS does not apply to the majority of the plan change area, due to no obvious HAIL activities being identified.

The NESCS may however apply to the localised potential HAIL activities listed in Table 1 of this report.

Hence, a Detailed Site Investigation (DSI), will be required to be undertaken in support of any proposed future subdivision application in order to determine whether it could be undertaken as a Controlled or Restricted Discretionary activity.

It is recommended that these potential HAIL areas be further investigated and remediated, as necessary, as part of enabling (pre-construction) works prior to any bulk earthworks or other soil disturbance activities.

Overall, the site is considered suitable to be rezoned for future residential development, provided the potential/actual localised contamination issues identified are appropriately investigated and managed through appropriate remediation or controls during site development.

8.0 LIMITATIONS

We have performed our services for this project in accordance with current professional standards for an assessment of the nature and extent of any soil contamination on-site, based upon detailed site assessment investigations and current regulatory standards for site contamination. The scope of the site assessment activities was generally in accordance with the Ministry for Environment Contaminated Land Management Guideline's (Parts 1 (2021), 2 (2011) and 5 (2021)) and the NESCS (2011). Conclusions on actual or potential contamination cannot be applied to areas outside of the site investigation.

We do not assume any liability for misrepresentation or items not visible, accessible or present at the subject site during the time of the site inspection.

Copyright of this report is held by Fraser Thomas Ltd. The professional opinion expressed herein has been prepared solely for, and is furnished to our client Cargill Station Limited, and Kaikōura District Council, on the express condition that it will only be used for the works and the purpose for which it is intended.

No liability is accepted by this firm or by any principal, or director, or any servant or agent of this firm, in respect of its use by any other person, and any other person who relies upon any matter contained in this report does so entirely at its own risk. This disclaimer shall apply notwithstanding that this report may be made available to any person by any person in connection with any application for permission or approval, or pursuant to any requirement of law.

Figures/Drawings

P:_CH Series\CH01912 - Ocean Ridge\Cad\03 Drawings\CH01912-E-01.dwg, gnaulls, 13/03/2025 9:56:47 am

Legend

H

Approximate location and extent of area, and associated 'neighbourhood' reference, subject to private plan change.



SURVEYED			APPROVED	DATE
DESIGNED			MVR	
DRAWN	GN	12/03/25		
CHECKED	SG	12/03/25		
REVISION	CHANGES		CHECKED	DATE

NOTES

1. This plan has been adopted from Grip map. The location and extent of the site boundaries and site features are therefore considered to be approximate only.
2. The location and extent of the site neighbourhood designations locations have been adopted from the Novo Group "Overall MasterPlan", project number 132001, dated 24-01-2025.

CLIENT

CARGILL STATION LTD

PROJECT

PRIVATE PLAN CHANGE,
OCEAN RIDGE,
KAIKOURA

TITLE

SITE WALKOVER PLAN



ENGINEERS • RESOURCE MANAGERS • SURVEYORS

AUCKLAND 09 278 7078
HAWKE'S BAY 06 211 2766
CHRISTCHURCH 03 358 5936
BLENHEIM 03 428 3292
NELSON 03 222 1132
TAURANGA 07 220 9277

www.fraserthomas.co.nz

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STATUS

Construction shall begin only on receipt of and in accordance with the Council or CCO stamped approved drawings, unless otherwise indicated.

SCALE 1:7500

(A3)

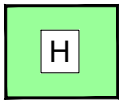
DRAWING No

CH01912-E-01

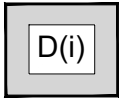
REVISION

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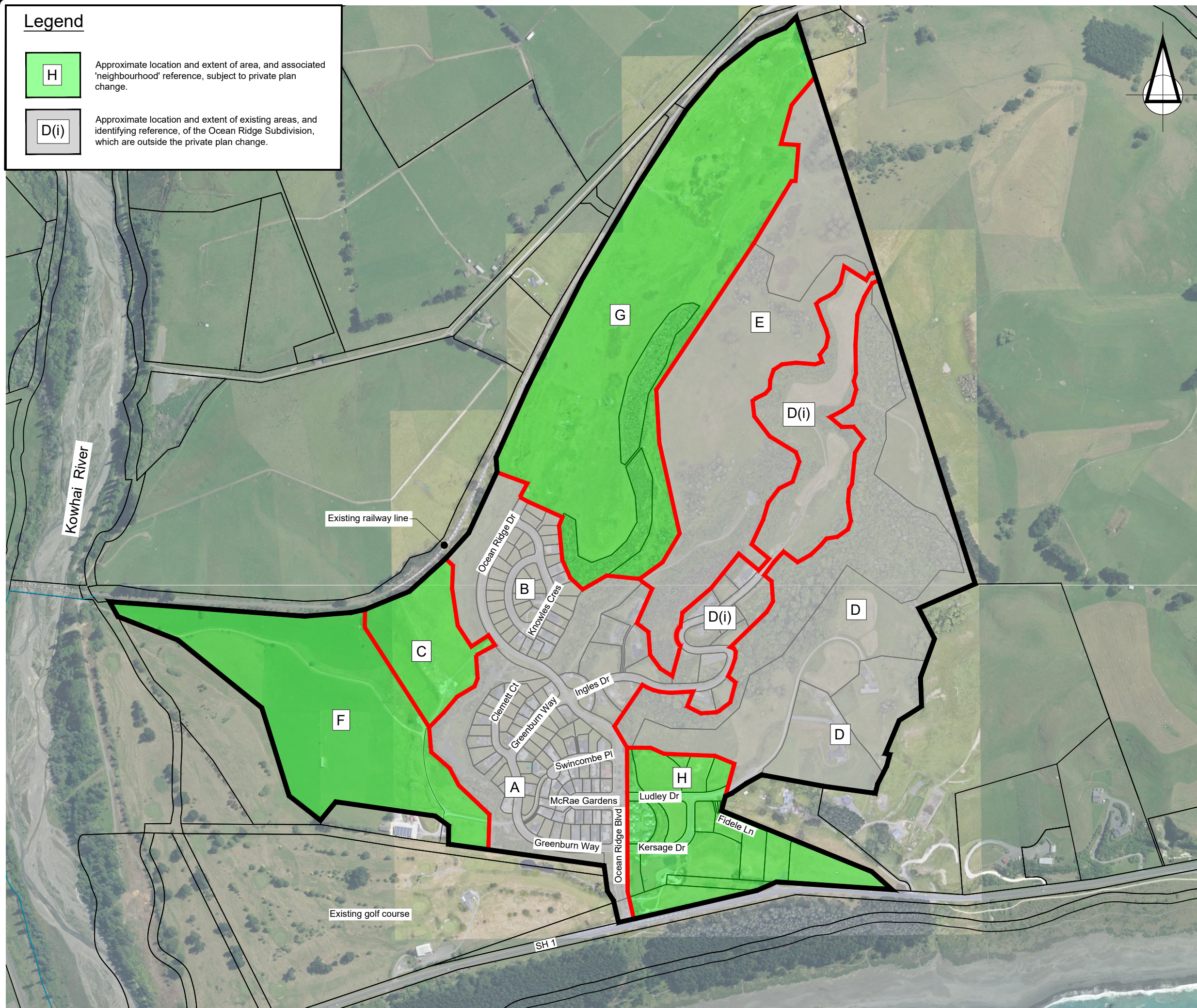
Legend



Approximate location and extent of area, and associated 'neighbourhood' reference, subject to private plan change.



Approximate location and extent of existing areas, and identifying reference, of the Ocean Ridge Subdivision, which are outside the private plan change.



SURVEYED			APPROVED	MVR	DATE
DESIGNED					
DRAWN	GN	16/10/24			
CHECKED	KT	16/10/24			
REVISION	CHANGES			CHECKED	DATE

- NOTES
1. This plan has been adopted from Grip map. The location and extent of the site boundaries and site features are therefore considered to be approximate only.
 2. The location and extent of the site neighbourhood designations locations have been adopted from the Novo Group "Overall MasterPlan", project number 132001, dated 24-01-2025.

CLIENT
CARGILL STATION LTD

PROJECT
PRIVATE PLAN CHANGE,
OCEAN RIDGE,
KAIKOURA

TITLE
SITE PLAN
(CONTEXT)



Fraser

Thomas

ENGINEERS • RESOURCE MANAGERS • SURVEYORS

AUCKLAND	09 278 7078
HAWKE'S BAY	06 211 2766
CHRISTCHURCH	03 358 5936
BLenheim	03 428 3292
NELSON	03 222 1132
TAURANGA	07 220 9277

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STATUS	
Construction shall begin only on receipt of and in accordance with the Council or CCO stamped approved drawings, unless otherwise indicated.	
SCALE	1:7500 (A3)
DRAWING No	CH01912-G-01
REVISION	

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SURVEYED			APPROVED	DATE
DESIGNED			MVR	
DRAWN	GN	13/03/25		
CHECKED	KT	13/03/25		
REVISION	CHANGES		CHECKED	DATE

NOTES

1. This plan has been adopted from the Novo Group Overall Masterplan, project number 132001, revision C, dated 03/03/2025.

CLIENT

CARGILL STATION LTD

PROJECT

PRIVATE PLAN CHANGE,
OCEAN RIDGE,
KAIKOURA

TITLE

OVERALL MASTER PLAN
(NOVO GROUP)



Fraser

Thomas

ENGINEERS • RESOURCE MANAGERS • SURVEYORS

AUCKLAND

HAWKE'S BAY

CHRISTCHURCH

BLenheim

NELSON

TAURANGA

09 278 7078

06 211 2766

03 358 5936

03 428 3292

03 222 1132

07 220 9277

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SCALE 1:7500 (A3)

DRAWING No CH01912-G-02 REVISION

Appendix A

***Ministry for the Environment
Contaminated Site Report Checklist***

PRIVATE PLAN CHANGE

OCEAN RIDGE DEVELOPMENT AREA KAIKŌURA

CARGILL STATION LTD

SUMMARY CONTAMINATED SITES REPORT CHECKLIST

Content	Required	Required if relied on	CLMG 5 section
1. Introduction			
• investigation objectives	☒		2.1
• site identification (site name, address, legal description; site boundaries; a map reference and geographic coordinates)	☒		3.3.1
• proposed site use		☒	3.3.2
2. Site description			
• environmental setting		☒	3.3.3
• site layout	☒		3.3.4
• current site uses	☒		3.3.5
• surrounding land uses	☒		3.3.6
• geophysical surveys		☐	5.1
• site inspection		☒	3.3.8
3. Historical site use			
• summary of site history gained from:	☒		3.3.7
– review of existing investigation reports		☐	
– review of council information		☒	
– review of aerial photographs		☒	
– interviews		☐	
– review of other historical information		☒	
• preliminary sampling (if carried out)		☐	3.3.9
– description (including diagram)			
– justification for sample location and analyte selection			
– results			
– comparison of results to guidelines			
4. Risk assessment			
• evaluate the probability that pursuant to regulation 6 (3):	☒		3.3.11
– <i>an activity or industry described in the HAIL is, or is not, being undertaken on the piece of land, or</i>			
– <i>an activity or industry described in the HAIL has, or has not, been undertaken on the piece of land, or</i>			

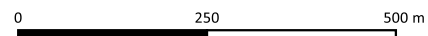
– <i>the likelihood of an activity or industry described in the HAIL being undertaken, or having been undertaken, on the piece of land</i>		
• evaluate the probability that pursuant to regulation 6 (3): – <i>the likelihood that the soil is contaminated as a result of activity or industry occurring</i>	☑	2.2
• description of the limitations of the data collected and the assumptions and uncertainties inherent in the data and models used	☑	7.3.1
5. Conclusions	☑	
6. Recommendations (if relevant to report purpose)	☑	
7. Report limitations	☑	
8. SQEP certification of report (refer appendix C)	☑	1.2
9. References	☑	
Appendices: relevant supporting information		

Appendix B

Aerial Photographs

Image sourced from <http://retrolens.nz> and licensed by LINZ CC-BY 3.0. Image has been manually georeferenced for illustrative purposes. The spatial accuracy has not been determined and should be considered approximate only.

Boundary information is derived under license from LINZ Digital Cadastral Database (Crown Copyright Reserved).

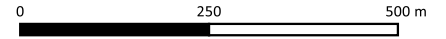


1:10,000
Map created by Fraser Thomas Ltd



Unless otherwise stated, aerial imagery, property boundary and any other site information shown, have been sourced from Canterbury Maps and partners and licensed for reuse under the CC BY 4.0 license.

It should be noted that this map is for illustrative purposes only. The spatial accuracy has not been determined and should be considered approximate only.

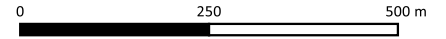


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Map created by Fraser Thomas Ltd



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It should be noted that this map is for illustrative purposes only. The spatial accuracy has not been determined and should be considered approximate only.

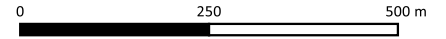


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Map created by Fraser Thomas Ltd

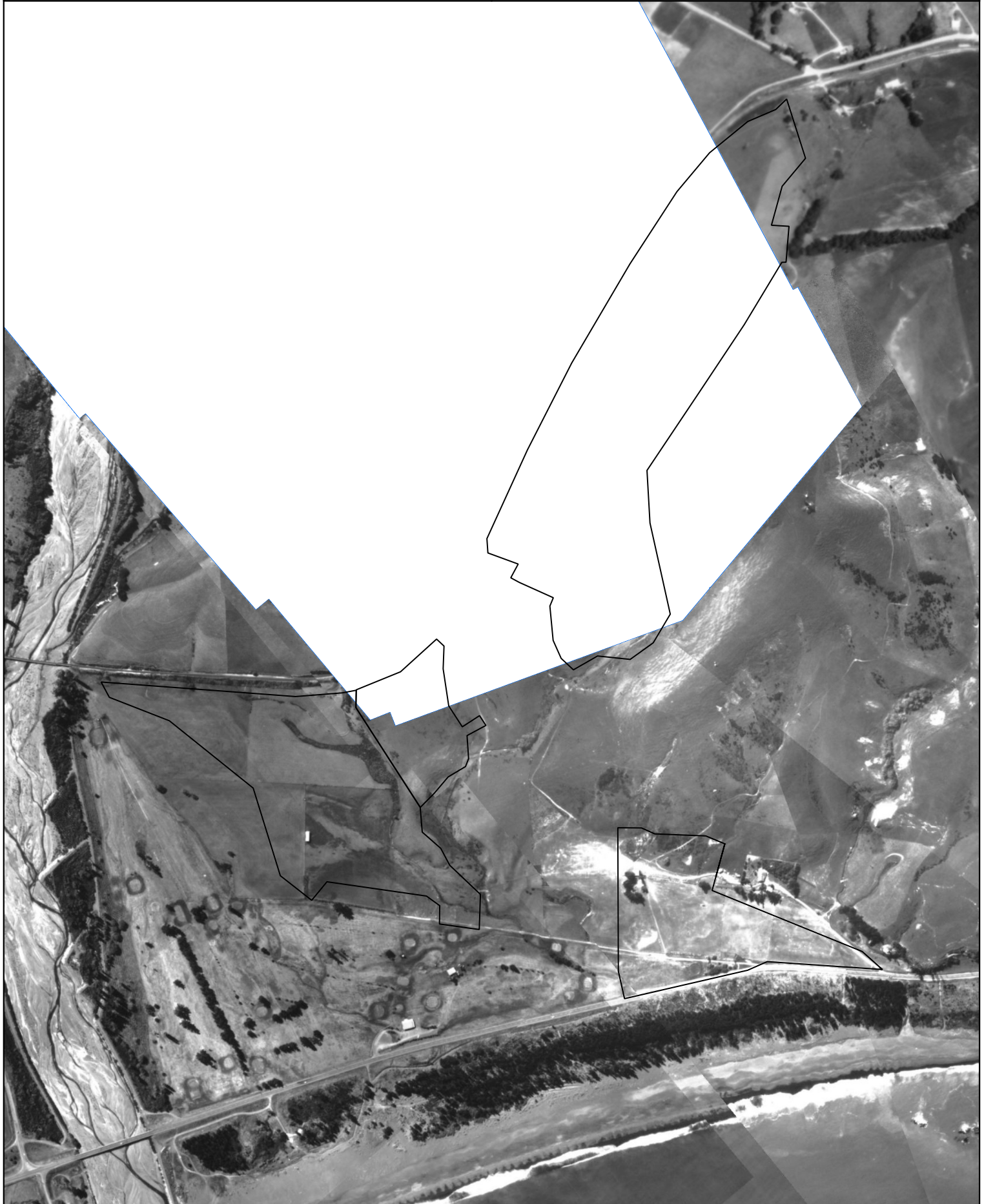


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It should be noted that this map is for illustrative purposes only. The spatial accuracy has not been determined and should be considered approximate only.

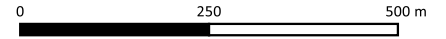


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Map created by Fraser Thomas Ltd

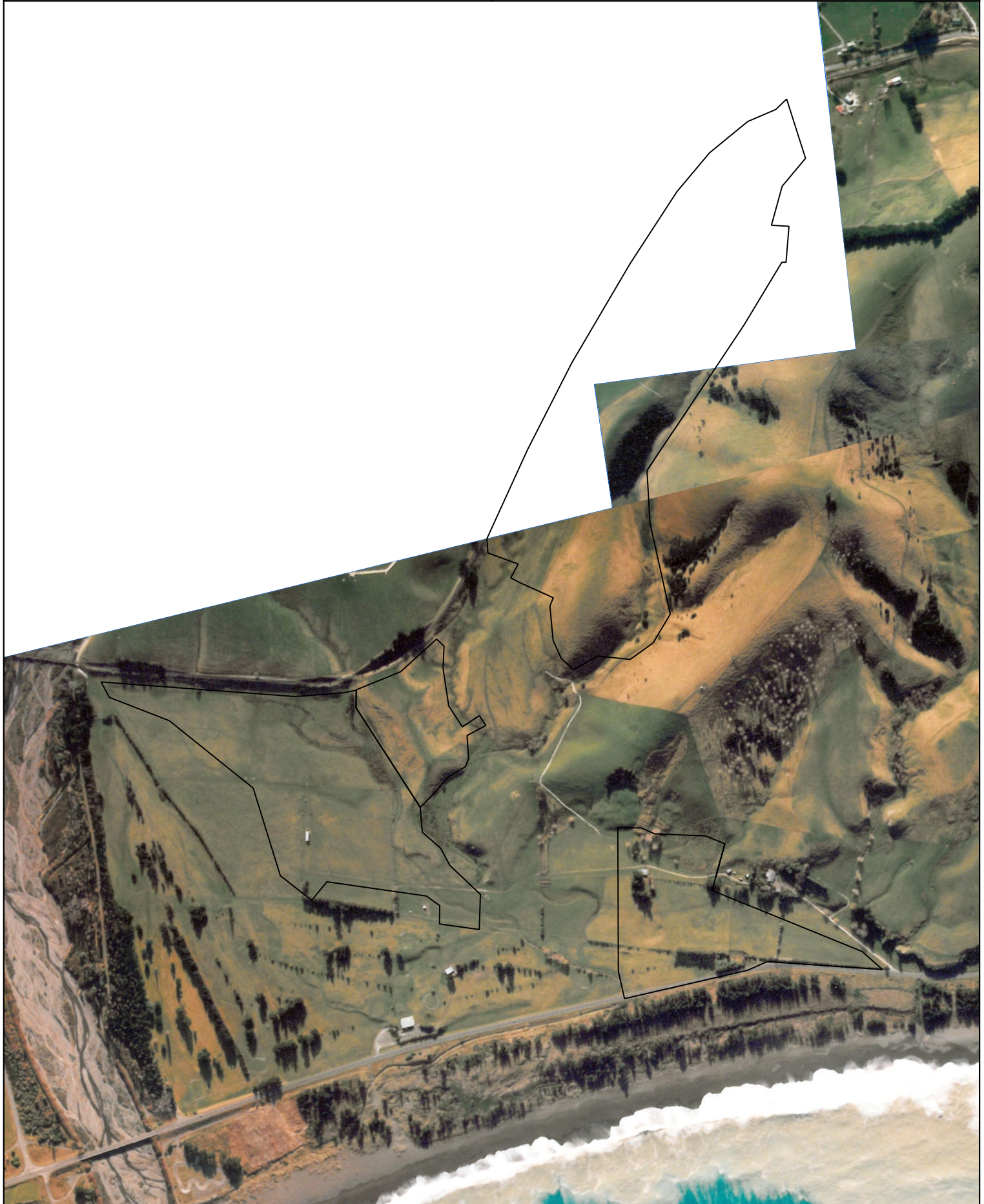


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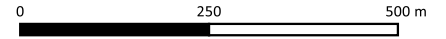


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Map created by Fraser Thomas Ltd



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It should be noted that this map is for illustrative purposes only. The spatial accuracy has not been determined and should be considered approximate only.

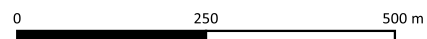


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It should be noted that this map is for illustrative purposes only. The spatial accuracy has not been determined and should be considered approximate only.

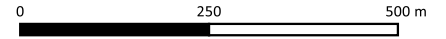


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Map created by Fraser Thomas Ltd



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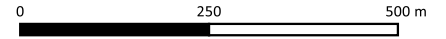


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Map created by Fraser Thomas Ltd



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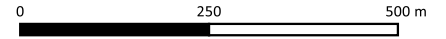


1:10,000
Map created by Fraser Thomas Ltd



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It should be noted that this map is for illustrative purposes only. The spatial accuracy has not been determined and should be considered approximate only.



1:10,000
Map created by Fraser Thomas Ltd



Appendix C

Listed Land Use Register (LLUR)



Customer Services
P. 03 353 9007 or 0800 324 636

PO Box 345
Christchurch 8140

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

www.ecan.govt.nz

Dear Sir/Madam

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

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

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

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

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

Yours sincerely

Contaminated Sites Team

Property Statement from the Listed Land Use Register

Visit ecan.govt.nz/HAIL for more information or
contact Customer Services at ecan.govt.nz/contact/ and quote ENQ391269

Date generated: 19 September 2024
Land parcels: Lot 299 DP 390693



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Sites at a glance

 **Sites within enquiry area**

There are no sites associated with the area of enquiry.

More detail about the sites

There are no sites associated with the area of enquiry.

Disclaimer

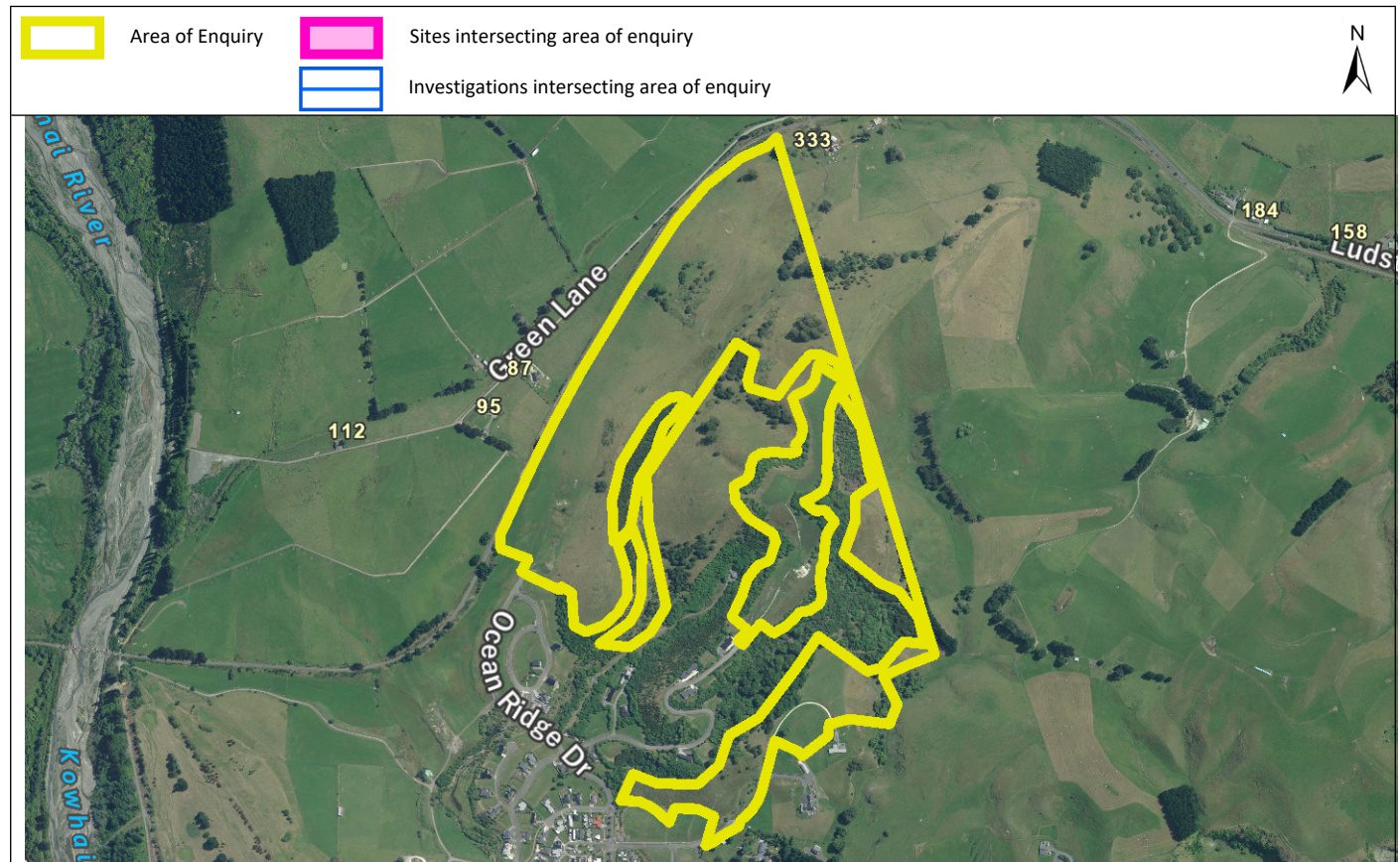
The enclosed information is derived from Environment Canterbury's Listed Land Use Register and is made available to you under the Local Government Official Information and Meetings Act 1987.

The information contained in this report reflects the current records held by Environment Canterbury regarding the activities undertaken on the site, its possible contamination and based on that information, the categorisation of the site. Environment Canterbury has not verified the

Property Statement from the Listed Land Use Register

Visit ecan.govt.nz/HAIL for more information or
contact Customer Services at ecan.govt.nz/contact/ and quote ENQ391270

Date generated: 19 September 2024
Land parcels: Lot 3 DP 422084



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Sites at a glance

 **Sites within enquiry area**

There are no sites associated with the area of enquiry.

More detail about the sites

There are no sites associated with the area of enquiry.

Disclaimer

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

The information contained in this report reflects the current records held by Environment Canterbury regarding the activities undertaken on the site, its possible contamination and based on that information, the categorisation of the site. Environment Canterbury has not verified the

Property Statement from the Listed Land Use Register

Visit ecan.govt.nz/HAIL for more information or
contact Customer Services at ecan.govt.nz/contact/ and quote ENQ391271

Date generated: 19 September 2024
Land parcels: Lot 289 DP 372025



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Sites at a glance

 **Sites within enquiry area**

There are no sites associated with the area of enquiry.

More detail about the sites

There are no sites associated with the area of enquiry.

Disclaimer

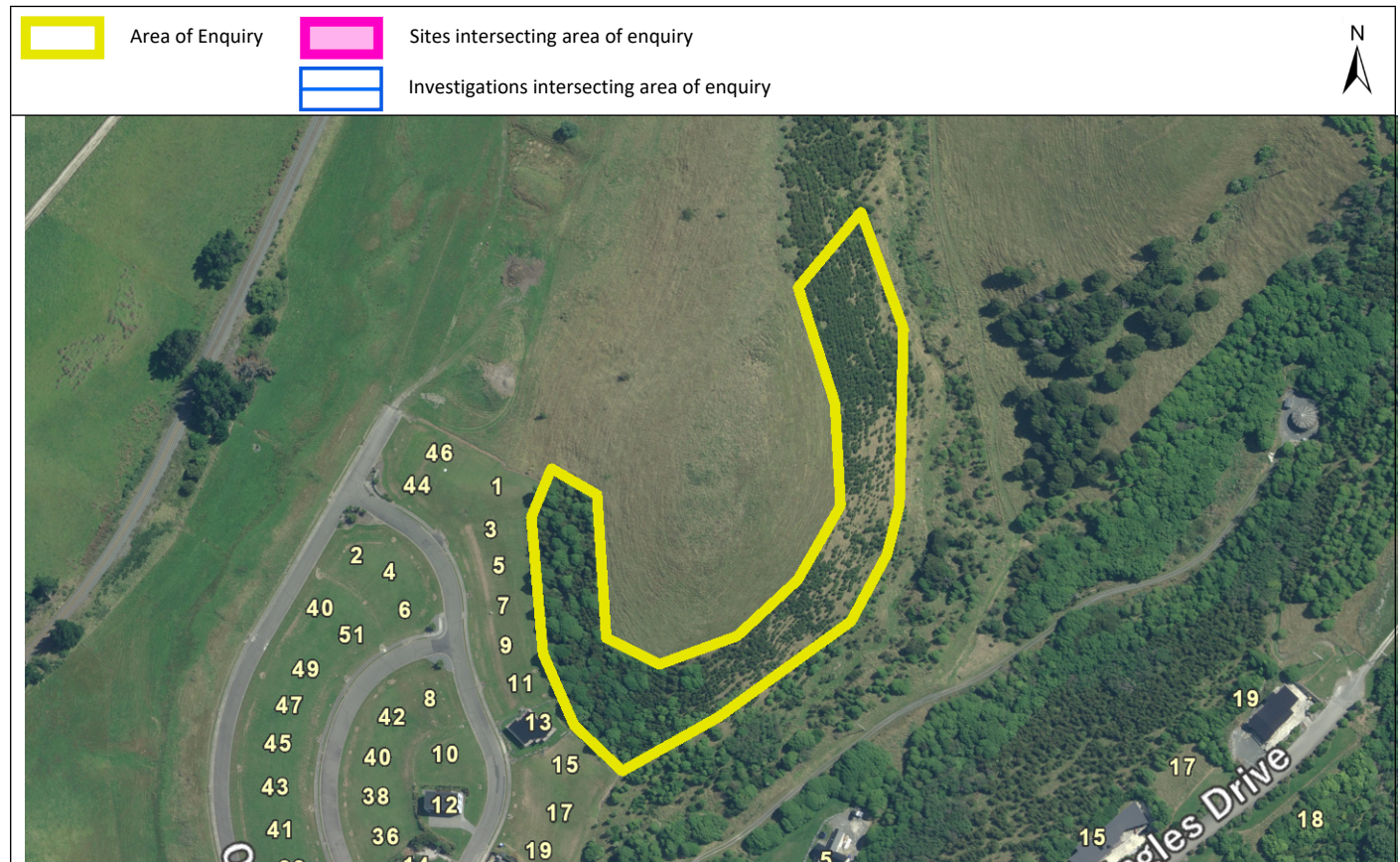
The enclosed information is derived from Environment Canterbury's Listed Land Use Register and is made available to you under the Local Government Official Information and Meetings Act 1987.

The information contained in this report reflects the current records held by Environment Canterbury regarding the activities undertaken on the site, its possible contamination and based on that information, the categorisation of the site. Environment Canterbury has not verified the

Property Statement from the Listed Land Use Register

Visit ecan.govt.nz/HAIL for more information or
contact Customer Services at ecan.govt.nz/contact/ and quote ENQ391272

Date generated: 19 September 2024
Land parcels: Lot 288 DP 372025



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Sites at a glance

Sites within enquiry area

There are no sites associated with the area of enquiry.

More detail about the sites

There are no sites associated with the area of enquiry.

Disclaimer

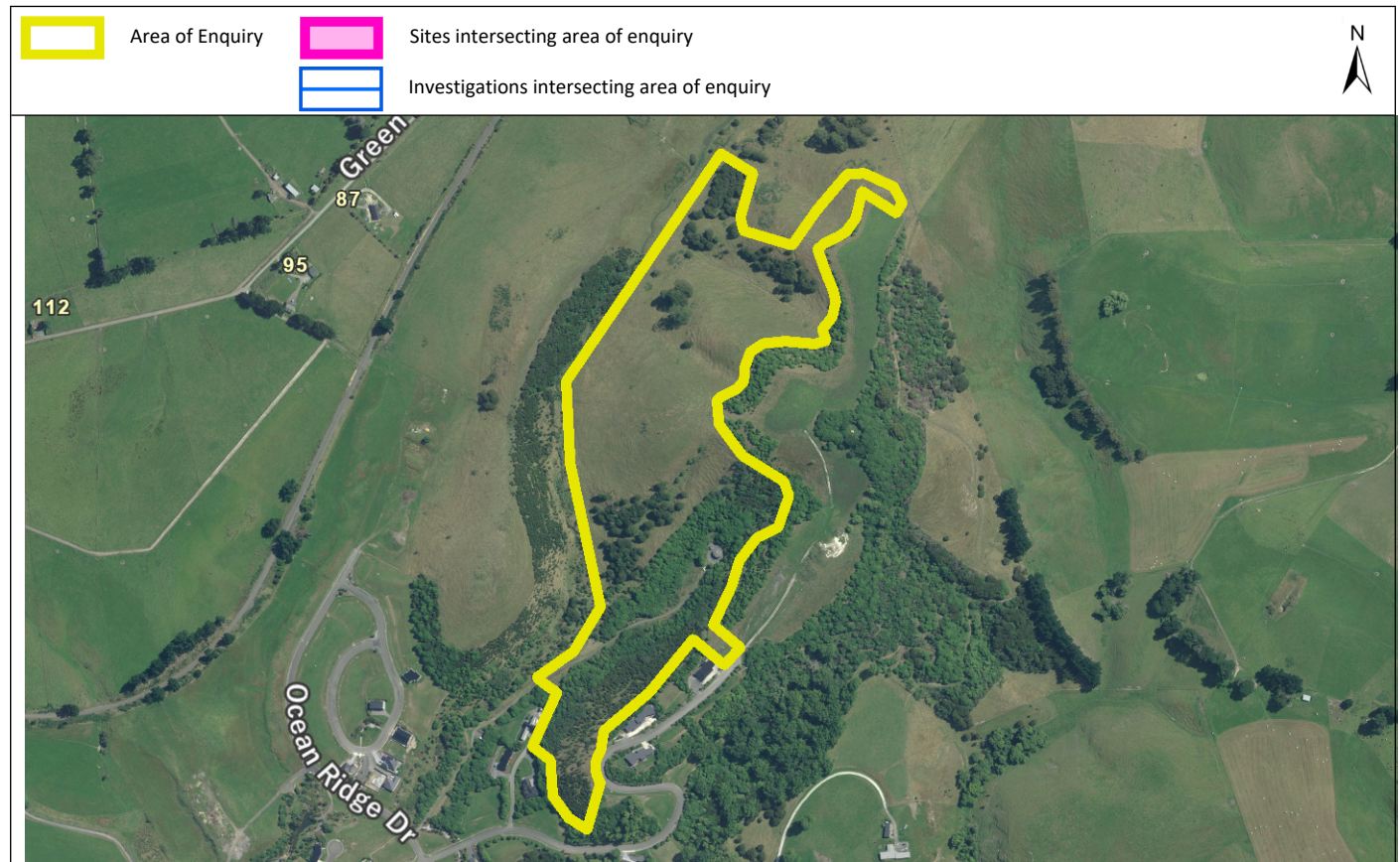
The enclosed information is derived from Environment Canterbury's Listed Land Use Register and is made available to you under the Local Government Official Information and Meetings Act 1987.

The information contained in this report reflects the current records held by Environment Canterbury regarding the activities undertaken on the site, its possible contamination and based on that information, the categorisation of the site. Environment Canterbury has not verified the

Property Statement from the Listed Land Use Register

Visit ecan.govt.nz/HAIL for more information or
contact Customer Services at ecan.govt.nz/contact/ and quote ENQ391273

Date generated: 19 September 2024
Land parcels: Lot 287 DP 372025



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Sites at a glance

 **Sites within enquiry area**

There are no sites associated with the area of enquiry.

More detail about the sites

There are no sites associated with the area of enquiry.

Disclaimer

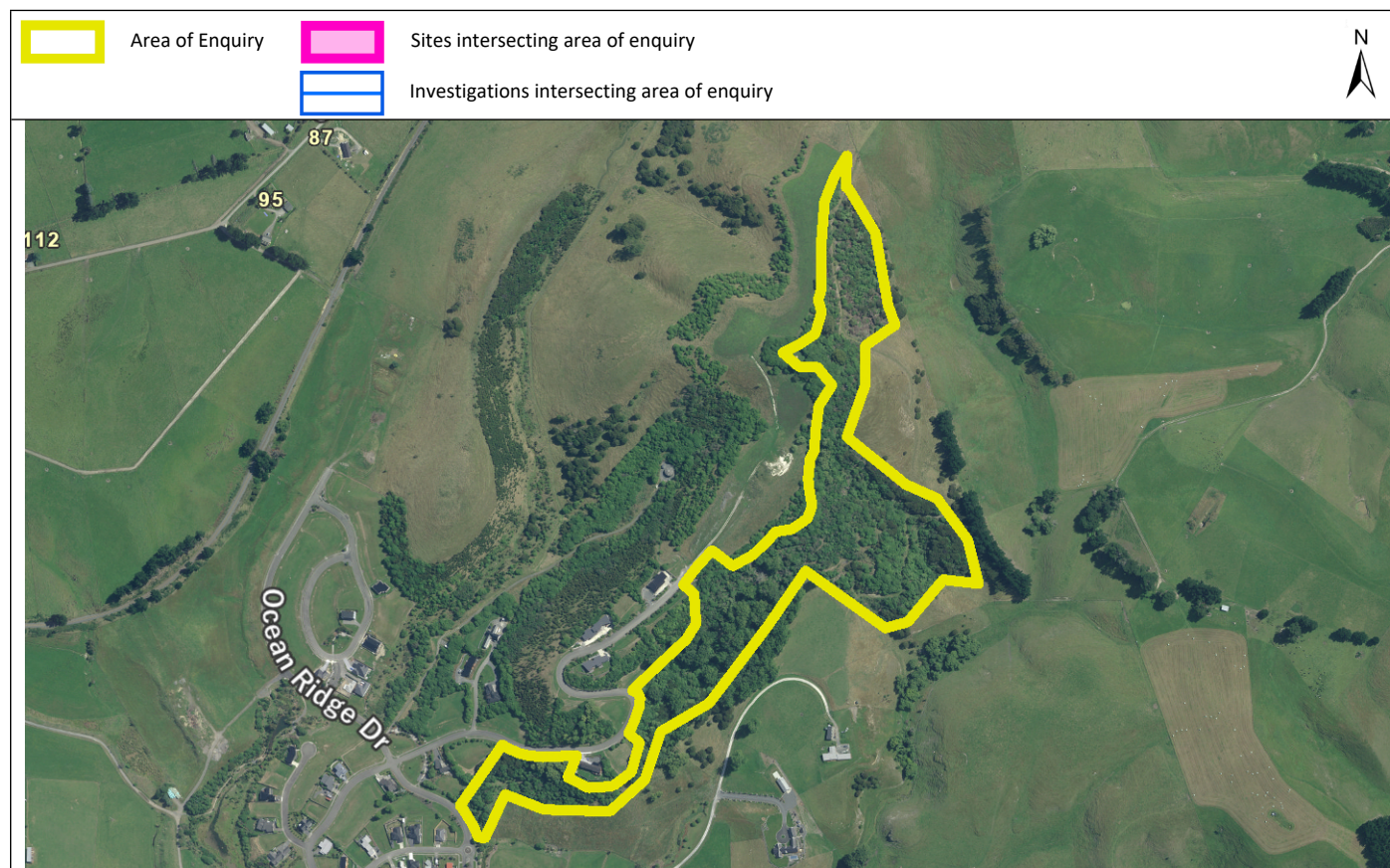
The enclosed information is derived from Environment Canterbury's Listed Land Use Register and is made available to you under the Local Government Official Information and Meetings Act 1987.

The information contained in this report reflects the current records held by Environment Canterbury regarding the activities undertaken on the site, its possible contamination and based on that information, the categorisation of the site. Environment Canterbury has not verified the

Property Statement from the Listed Land Use Register

Visit ecan.govt.nz/HAIL for more information or
contact Customer Services at ecan.govt.nz/contact/ and quote ENQ391274

Date generated: 19 September 2024
Land parcels: Lot 286 DP 372025



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Sites at a glance

 **Sites within enquiry area**

There are no sites associated with the area of enquiry.

More detail about the sites

There are no sites associated with the area of enquiry.

Disclaimer

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

The information contained in this report reflects the current records held by Environment Canterbury regarding the activities undertaken on the site, its possible contamination and based on that information, the categorisation of the site. Environment Canterbury has not verified the

Property Statement from the Listed Land Use Register

Visit ecan.govt.nz/HAIL for more information or
contact Customer Services at ecan.govt.nz/contact/ and quote ENQ391275

Date generated: 19 September 2024
Land parcels: Lot 298 DP 372025



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Sites at a glance

 **Sites within enquiry area**

There are no sites associated with the area of enquiry.

More detail about the sites

There are no sites associated with the area of enquiry.

Disclaimer

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

The information contained in this report reflects the current records held by Environment Canterbury regarding the activities undertaken on the site, its possible contamination and based on that information, the categorisation of the site. Environment Canterbury has not verified the

Property Statement from the Listed Land Use Register

Visit ecan.govt.nz/HAIL for more information or
contact Customer Services at ecan.govt.nz/contact/ and quote ENQ391277

Date generated: 19 September 2024
Land parcels: Lot 75 DP 372025



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Sites at a glance

 **Sites within enquiry area**

There are no sites associated with the area of enquiry.

More detail about the sites

There are no sites associated with the area of enquiry.

Disclaimer

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

The information contained in this report reflects the current records held by Environment Canterbury regarding the activities undertaken on the site, its possible contamination and based on that information, the categorisation of the site. Environment Canterbury has not verified the

Property Statement from the Listed Land Use Register

Visit ecan.govt.nz/HAIL for more information or
contact Customer Services at ecan.govt.nz/contact/ and quote ENQ391278

Date generated: 19 September 2024
Land parcels: Lot 76 DP 372025



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Sites at a glance

 **Sites within enquiry area**

There are no sites associated with the area of enquiry.

More detail about the sites

There are no sites associated with the area of enquiry.

Disclaimer

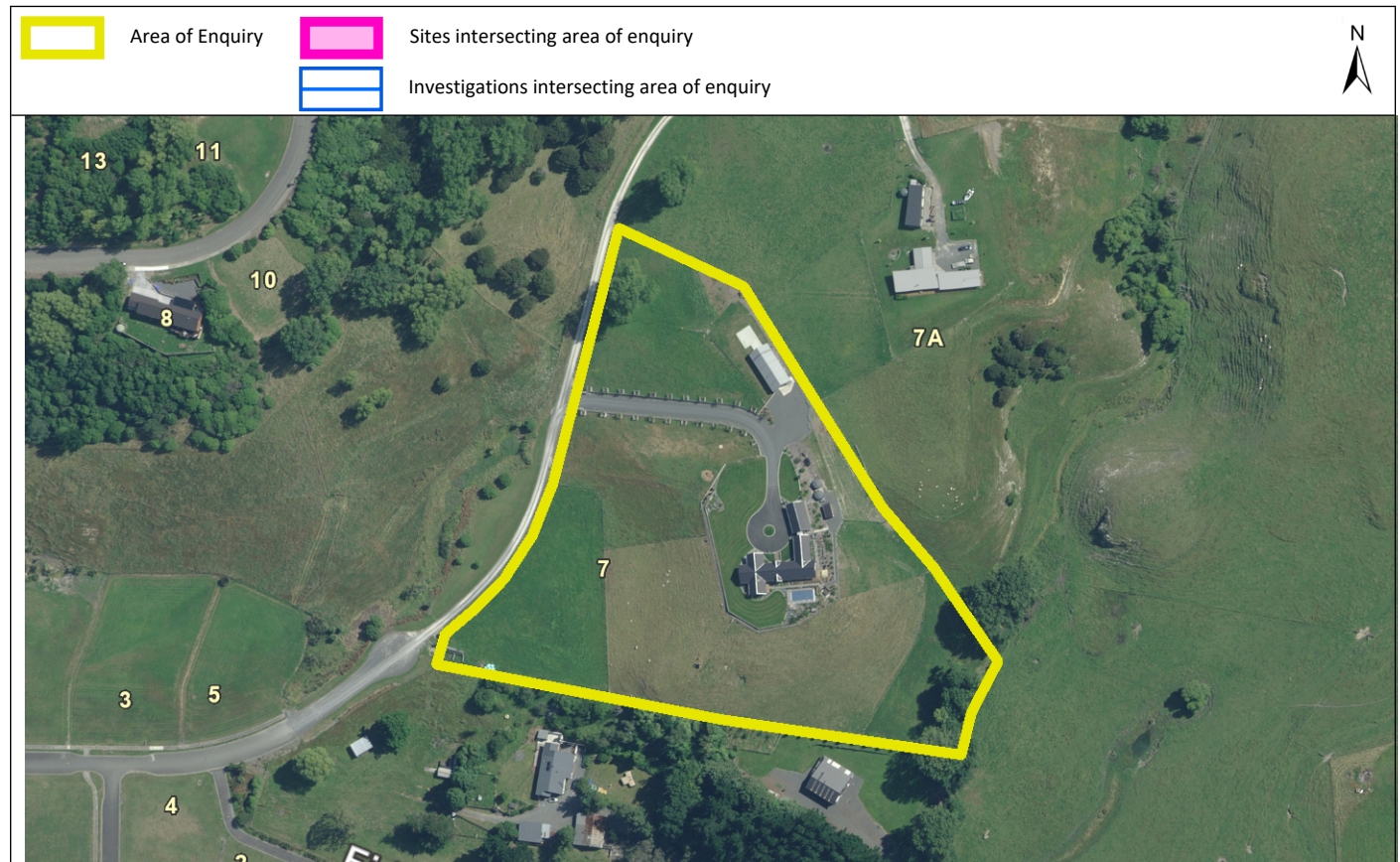
The enclosed information is derived from Environment Canterbury's Listed Land Use Register and is made available to you under the Local Government Official Information and Meetings Act 1987.

The information contained in this report reflects the current records held by Environment Canterbury regarding the activities undertaken on the site, its possible contamination and based on that information, the categorisation of the site. Environment Canterbury has not verified the

Property Statement from the Listed Land Use Register

Visit ecan.govt.nz/HAIL for more information or
contact Customer Services at ecan.govt.nz/contact/ and quote ENQ391279

Date generated: 19 September 2024
Land parcels: Lot 1 DP 422084



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Sites at a glance

Sites within enquiry area

There are no sites associated with the area of enquiry.

More detail about the sites

There are no sites associated with the area of enquiry.

Disclaimer

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

The information contained in this report reflects the current records held by Environment Canterbury regarding the activities undertaken on the site, its possible contamination and based on that information, the categorisation of the site. Environment Canterbury has not verified the

Property Statement from the Listed Land Use Register

Visit ecan.govt.nz/HAIL for more information or
contact Customer Services at ecan.govt.nz/contact/ and quote ENQ391280

Date generated: 19 September 2024
Land parcels: Lot 2 DP 422084



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Sites at a glance

 **Sites within enquiry area**

There are no sites associated with the area of enquiry.

More detail about the sites

There are no sites associated with the area of enquiry.

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Property Statement from the Listed Land Use Register

Visit ecan.govt.nz/HAIL for more information or
contact Customer Services at ecan.govt.nz/contact/ and quote ENQ391281

Date generated: 19 September 2024
Land parcels: Lot 283 DP 372025



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Sites at a glance

 **Sites within enquiry area**

There are no sites associated with the area of enquiry.

More detail about the sites

There are no sites associated with the area of enquiry.

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Property Statement from the Listed Land Use Register

Visit ecan.govt.nz/HAIL for more information or
contact Customer Services at ecan.govt.nz/contact/ and quote ENQ391283

Date generated: 19 September 2024
Land parcels: Lot 77 DP 372025



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Sites at a glance

 **Sites within enquiry area**

There are no sites associated with the area of enquiry.

More detail about the sites

There are no sites associated with the area of enquiry.

Disclaimer

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Property Statement from the Listed Land Use Register

Visit ecan.govt.nz/HAIL for more information or
contact Customer Services at ecan.govt.nz/contact/ and quote ENQ391284

Date generated: 19 September 2024
Land parcels: Lot 78 DP 372025



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Sites at a glance

 Sites within enquiry area

There are no sites associated with the area of enquiry.

More detail about the sites

There are no sites associated with the area of enquiry.

Disclaimer

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Property Statement from the Listed Land Use Register

Visit ecan.govt.nz/HAIL for more information or
contact Customer Services at ecan.govt.nz/contact/ and quote ENQ391285

Date generated: 19 September 2024
Land parcels: Lot 79 DP 372025



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Sites at a glance

 **Sites within enquiry area**

There are no sites associated with the area of enquiry.

More detail about the sites

There are no sites associated with the area of enquiry.

Disclaimer

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Property Statement from the Listed Land Use Register

Visit ecan.govt.nz/HAIL for more information or
contact Customer Services at ecan.govt.nz/contact/ and quote ENQ391287

Date generated: 19 September 2024
Land parcels: Lot 80 DP 372025



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Sites at a glance

 Sites within enquiry area

There are no sites associated with the area of enquiry.

More detail about the sites

There are no sites associated with the area of enquiry.

Disclaimer

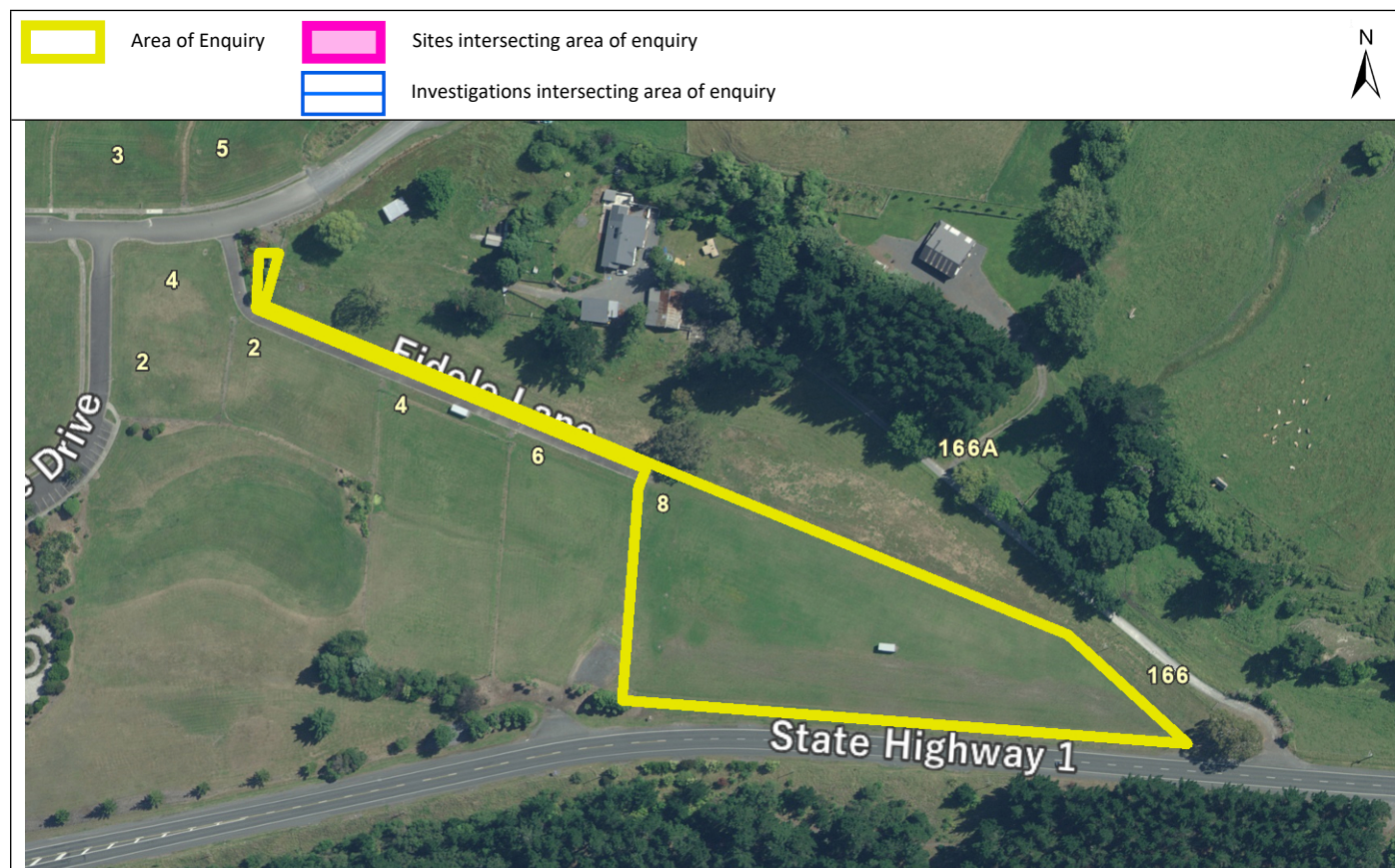
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Property Statement from the Listed Land Use Register

Visit ecan.govt.nz/HAIL for more information or
contact Customer Services at ecan.govt.nz/contact/ and quote ENQ391288

Date generated: 19 September 2024
Land parcels: Lot 81 DP 372025



The information presented in this map is specific to the property you have selected. Information on nearby properties may not be shown on this map, even if the property is visible.

Sites at a glance

 **Sites within enquiry area**

There are no sites associated with the area of enquiry.

More detail about the sites

There are no sites associated with the area of enquiry.

Disclaimer

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

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

Listed Land Use Register

What you need to know



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.

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

How does Environment Canterbury classify sites on the LLUR?

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

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

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

The LLUR is available online at 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.



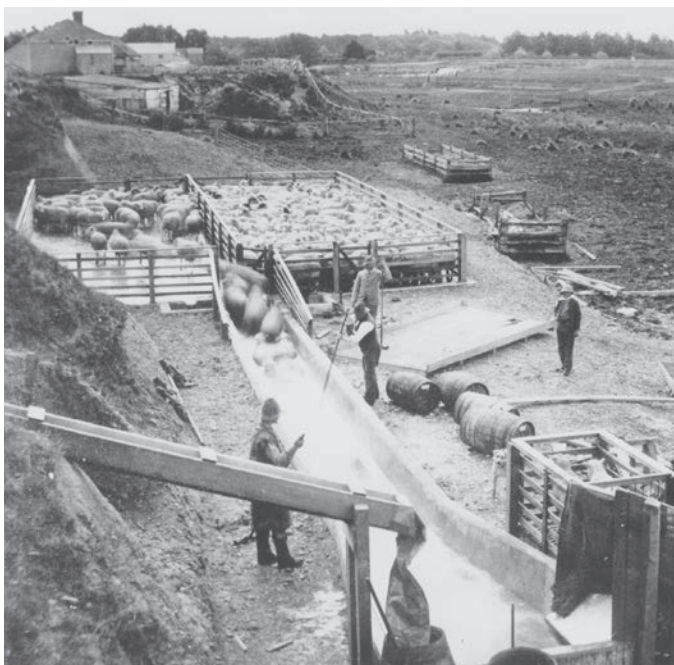
I think my site category is incorrect – how can I change it?

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.

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.)

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)

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

Appendix C

Site Walkover Photographs

Area H

Site Walkover Photographs – Area H



P1: Looking south across Area H.



P2: Looking east across southern part of Area H

Area F

Site Walkover Photographs – Area F



P3: Looking east across northern part of Area F.



P4: Looking south across Area F from the existing river access track. The circa 1980 implement shed can be seen in the right background.

Site Walkover Photographs – Area F



P5: Circa 1980 implement shed in Area F.



P6: Storage of timber framing and off-cuts within implement shed. Some of which were labelled with H1.2 and H3.2 treatment identification.

Site Walkover Photographs – Area F



P7: Implement shed, circa 2012, located along the southern boundary of Area F. Various building materials, generally comprising concrete blocks, reinforcing steel and timber are being stored either on pallets or raised above ground.



P8: 600L spray tank located in the implement shed. No markings indicating what the spray comprised were observed.

Site Walkover Photographs – Area F



P9: Old 208L drum of diesel engine oil, with an attached pumping apparatus is located in the implement shed. The drum and pump are degraded and do not appear to have been used for a significant amount of time.



P10: Old 208L drums inferred to be used as make shift burn pits.

Site Walkover Photographs – Area F



P11: Close up of drums, currently being used to store rubbish. The charred timber in the left drum supports inferred use as makeshift burn pits.



P12: Photo showing stockyard located along southern boundary of Area F. Several trailers, including one with two IBCs labelled as originally containing MasterRoc SA 160.

Site Walkover Photographs – Area F



P13: View of recently constructed workshop building to the south of the stockyards.



P14: View of workshop building showing good condition concrete pavement area, chemical storage in shipping container and minor chemical storage associated with back pack sprayer.

Site Walkover Photographs – Area F



P15: Municipal water treatment facility, located to the east of the farm yard area. Signage indicates that Sodium Hypochlorite is used in the facility.

Area C

Site Walkover Photographs – Area C



P16: Looking south across stockpiles located in Area C. Note that the majority of stockpiles are vegetated with grass and are inferred have been placed in circa 2012.



P17: Expsoed stockpiled sandy clayey silts (circa 2012).



P18: View of test pit put down through clayey silt stockpile (circa 2012). The test pit appears to confirm that the majority of soils in the vegetated stockpiles, are likely to comprise sandy clayey silts, which are in turn underlain by sandy gravels. The sandy gravels in the base of the test pit were not encountered in geotechnical test pits and hand augers put down outside the extent, but in the vicinity of the stockpiles. Thus, these sandy gravels are inferred to be excess imported fill.

Site Walkover Photographs – Area C



P19: Stockpiled fine to coarse greywacke gravels with some cobbles (circa 2016).



P20: Stockpiled natural crushed limestone (latest materials to be stockpiled)

Site Walkover Photographs – Area C



P21: Example of tiles intemixed within stockpiled natural crushed limestone (latest materials to be stockpiled).



P22: One of the burn pile areas, located in northern part of the stockpile.

Site Walkover Photographs – Area C



P23: Smaller stockpiles of concrete, asphalt and other man-made materials, located in northern part of the stockpile area.



P24: Shallow offal pit located on top of a stockpile in Area C. There is potential for generation of leachate, particularly if other rubbish has been disposed to pit.

Area G

Site Walkover Photographs – Area G



P25: Looking north north-east across Area G from end of Ocean Ridge Drive. A small topsoil stockpile can be seen in the mid-ground.

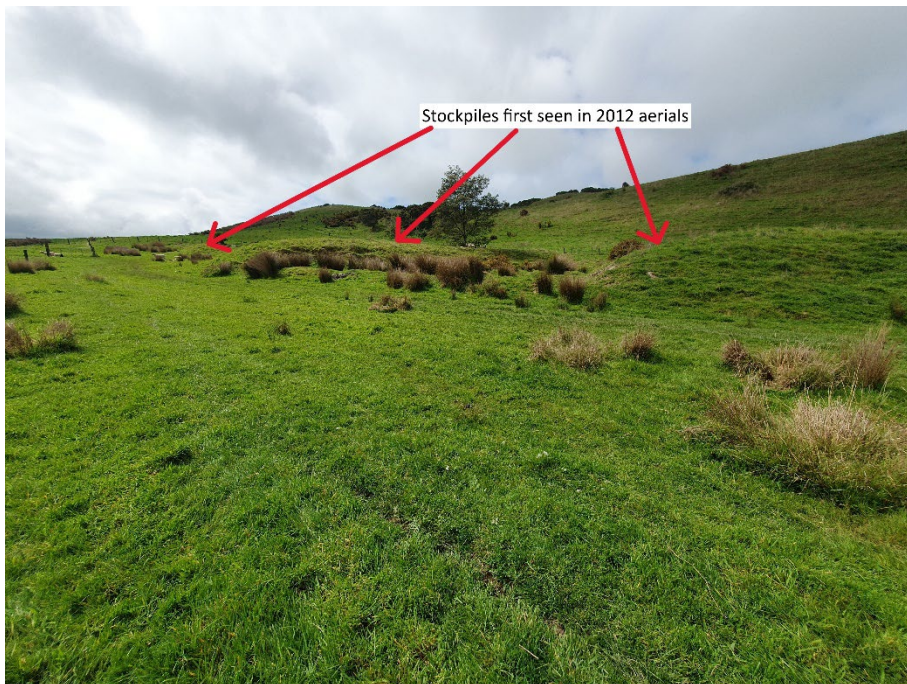


P26: Small sandy clayey silt stockpile located near south-western end of Area G. This stockpile is inferred to comprises excess soils from bulk earthworks or building construction in earlier stages of Ocean Ridge.

Site Walkover Photographs – Area G



P27: Burn pile located in south-western part of Area G. Both vegetation and potentially general rubbish appear to have been burnt here.



P28: Overgrown stockpiled soils located on the south-western part of Area G. These stockpiles were first observed in the 2012 aerial.



P29: View of test pit put down through one of the overgrown stockpiles (circa 2012). The stockpile generally comprises sandy clayey silts, intermixed with topsoil and trace amounts of concrete and asphalt.

Site Walkover Photographs – Area G



P30: Various construction materials lying on ground in vicinity of stockpiles.



P31: Larger stockpile of various construction materials stockpiled in south-western part of Area G.