

**PRELIMINARY SITE
INVESTIGATION
PROPOSED PLAN CHANGE
TO THE WAIPA DISTRICT
PLAN**

JULY 2018

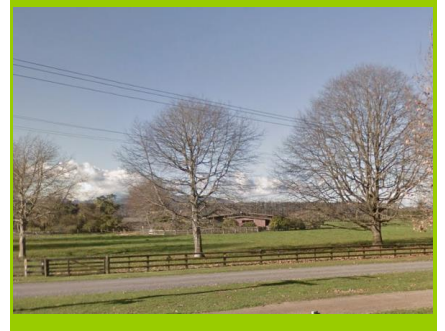
**PREPARED FOR:
BARDOWIE INVESTMENTS
LTD**

CSI

Contaminated Site Investigation
34 Brookfield Street
Hamilton

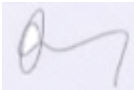
Ph: 07 859 1481
Mob: 021 072 5617

contaminatedsite@xtra.co.nz





**PSI REPORT: PROPOSED PLAN CHANGE TO THE
WAIPA DISTRICT PLAN**

Prepared by: GUY SOWRY	Date:
	24.07.2018.
DIRECTOR	

CSI**CONTAMINATED SITE INVESTIGATION**

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0.0 Executive Summary

Purpose	Undertake a PSI for a piece of land at 140, 194, 214 and 224 Laurent Road, Cambridge.
Current and Proposed Site Status	The piece of land is predominantly pastoral land with farm buildings including a residential dwelling in the southwestern corner, a lifestyle block in the central west and a manufacturing company in the northwest. Plan change to the Waipa District Plan.
Site History	Aerial photos document as pastoral land with the main farm buildings located in the southwestern corner and northwest and residential dwellings. Anecdotal information documents above ground fuel tanks and potential historical landfills at the piece of land in the southwestern corner.
Geology Hydrogeology Hydrology	The soil at the piece of land is a topsoil overlying sands. A shallow groundwater system is present beneath the piece of land. The nearest surface water is the Mangaone stream located on adjacent land to the north.
Piece of Land Investigation	History Dairy farm from at least 1943 to present. Industrial landuse. Potential Ground Contamination Metals, organophosphates, and hydrocarbons. Potential HAIL <ul style="list-style-type: none"> ▪ A.17 - fuel storage; ▪ D.5 – engineering workshop; and ▪ G.3 – landfill sites. Conceptual Model A low risk to human health and the environment as contaminant pathways are considered to be incomplete for a plan change as nothing is to change on the piece of land at this point time.
Recommendation	<ol style="list-style-type: none"> 1. The site shall be classified as ‘<i>Verified HAIL – not sampled</i>’. 2. A DSI shall be required if the landuse changes to a more sensitive landuse. 3. A Works Management Plan shall be completed prior to any intrusive works occurring if the landuses does not change to a more sensitive landuse.
<i>This sheet is intended to provide a summary only of the assessment study of the site. This sheet does not provide a definitive scientific analysis.</i>	

1.0 INTRODUCTION

- 1.1 Contaminated Site Investigations (CSI) has been appointed by Bardowie Investments Ltd to undertake a Preliminary Site Investigation (PSI) of a piece of land at 140, 194, 214 and 224 Laurent Road, Cambridge. A PSI was requested as a Hazardous Activity or Industry (HAIL) may have occurred.
- 1.2 The aim of the PSI is to provide Bardowie Investments Ltd with an evaluation of ground conditions to determine if a HAIL has occurred on the piece of land and if yes:
 - the potential risk to human health; and
 - the potential risk to the environment.
- 1.3 The PSI has been completed in general accordance with: the Resource Management Act 1991 (RMA) and the Resource Management Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011(NES).
- 1.4 This report is based on a review of aerial photos, oblique photos and consultation. The report has been prepared by Guy Sowry in accordance with the NES and in particular the Ministry for the Environment (MfE) *Contaminated Land Management Guidelines No 1 - Reporting on Contaminated Land*.
- 1.5 As per the NES User Guide Suitably Qualified and Experienced Practitioner requirements Guy Sowry holds a postgraduate diploma in 'Environmental Health Science' and over 20 years experience investigating and reporting on contaminated land.
- 1.6 The following limitations should be noted:
 - consultation with council's in regard to HAIL activities, consents, pollution incidents etc at the piece of land was unable to be undertaken due to time constraints;
 - consultation with Shoof International was unable to be undertaken due to time constraints;
 - a site walkover was unable to be undertaken due to time constraints; and
 - the investigation is only a preliminary investigation with no soil samples. Should a risk to human health be proven a detailed site investigation shall be required.
- 1.7 Attention is drawn to the report conditions shown in Appendix A.

2.0 CURRENT PIECE OF LAND STATUS

2.1 Piece of Land Identification

- 2.1.1 The piece of land is located north of the Cambridge Section of the Waikato Expressway as shown in Figure 1.
- 2.1.2 Details of 140 – 224 Laurent Road, Cambridge is provided for in Table 1; Cambridge Site Details.

Table 1: Bardowie Farms, Cambridge Site Details

ADDRESS	LEGAL DESCRIPTION	SIZE	VRN
140 Laurent Road	Lot 2 DPS 31840, Pt Section 30 SO 457816 and Section 33 SO 457816		04380/259/06
194 Laurent Road	Lot 1 DP 401490	0.25 ha	04380/261/00
214 Laurent Road	Lot 1 DP 06177	3.3 ha	04380/261/04
224 Laurent Road	Lot 1 DPS 80707	1.3 ha	04380/261/04

- 2.1.3 The majority of the piece of land is zoned in the Operative Waipa District Plan as 'Rural' with the western portion of the farm zoned 'Deferred Industrial'.

2.2 Piece of Land Description

- 2.2.1 The piece of land includes pastoral land at 140 Laurent Road, rural residential land at 194 and 214 Laurent Road and industrial land at 224 Laurent Road, as shown in Figure 1.
- 2.2.2 The pastoral land and is currently used for the spray irrigation of Fonterra's Hautapu Dairy Factory. A residential dwelling and a series of farm implementation sheds including a milking shed and grain silos are located in the southwestern corner. Also in this area are two grain feed pads. The Mangaone Stream flows through the northern part of this piece of the land in an east to west direction
- 2.2.3 The rural residential property comprises a dwelling and garage in the central north with a driveway to Laurent Road, with a pool and tennis court to the north and north east. The remainder of this piece of the land is grass and a garden.
- 2.2.4 The industrial site comprises a series of joined buildings in the south, east and north with a driveway in the north and west to Laurent Road. Shoof International currently occupies this part of the piece of land. A residential dwelling is located in the west with grass and trees also present and a driveway to Laurent Road.
- 2.2.5 The piece of land is mostly flat.

2.3 Surrounding Environment

- 2.3.1 The piece of land is situated in an area typified by commercial, community services, pastoral farming and industry.
- 2.3.2 A residential property and pastoral farm are located adjacent to the western boundary in the northwest.
- 2.3.3 Hautapu Cemetery, a service station, a transport depot, a trailer manufacturing/engineering firm, a tractor/agricultural machinery workshop and a motor vehicle workshop are also located to the west beyond Victoria Street.
- 2.3.4 Hautapu Welders is located to the west beyond Victoria Road with Fonterra Dairy factory located further to the north.
- 2.3.5 Pastoral land with residential dwelling is located to the east and the north beyond Zig Zag Road. Lifestyle blocks and pastoral land are located to the east beyond Swayne Road. Pastoral land is located to the south beyond the Waikato Expressway.

2.4 Proposed Development

- 2.4.1 At this point in time a plan change is sought for the piece of land.

3.0 HISTORICAL REVIEW

3.1 Aerial Photos

- 3.1.1 Reproductions of aerial photos are included in this report as SK01 (1943) to SK8 (2008) and are located in Appendix B.
- 3.1.2 The **1943** reproduction (SK01) shows the piece of land as predominantly pastoral land with structures present across the piece of land. A number of structures are present in the northwest including what appears to be a residential dwelling adjacent to the road. A residential dwelling is located in the southwestern corner. Residential dwellings appear to be located in the central south. A number of small structures are present in the central south. The surrounding land is predominantly pastoral. The Mangaone Stream with an associated gully, wetlands and hollows is present immediately to the north. A grove of trees is present immediately to the southeast as is a residential dwelling. Beyond the road in the west is a cemetery.
- 3.1.3 The **1953** reproduction (SK02) shows similar conditions to the 1943 reproduction with the main difference being the introduction of structures in the southwestern including what appears to be a milking shed and structures in the east and a large pit in the central northeast. The surrounding land also shows similar conditions. However, the grove of trees to the southeast appears to be in a pond/wetland.
- 3.1.4 The **1967** reproduction (SK03) appears to show similar conditions on the piece of land to the 1953 reproduction. The main changes being: the number and size of the buildings in the northwest has increased; a structure is present in the northeast; and the pit has gone. The immediate surrounding land remains similar to the previous reproductions.
- 3.1.5 The **1974** reproduction (SK04) appears to shows similar conditions to the 1967 reproduction. The main changes being: the appearance of two residential dwelling in the west, one immediately south of the cluster of buildings and the second further south; and the removal of the structure in the northeast. The surrounding land remains as predominantly pastoral however, the structures in the southeast have gone.
- 3.1.6 The **1979** reproduction (SK05) shows very similar piece of land conditions to the 1974 reproduction. The main difference being a series of elongated structures in the north and a pond in the southeast. The immediate surrounding land also remains relatively unchanged to the 1967 and 1974 reproductions however, the majority of trees within the pond/wetland have been removed.

- 3.1.7 The **2008** reproduction (SK06) shows the piece of land as pastoral land in the south, east and north with a number of structures including a residential dwelling, a milking shed and silos in the southwestern corner. Also present in the northeast is an effluent pond. A lifestyle block containing a dwelling is present in the west. Immediately to the north is a series of joined buildings with a driveway to Laurent Road. Also present adjacent to Laurent Road is a dwelling and associated garage. The land immediately to the north, northeast, east and south is pastoral with the exception of a residential dwelling in the northwestern corner. The Mangaone Stream including an oxbow lake and wetlands is still present to the north. The land beyond Laurent Road is industrial with exception of the cemetery and vacant land.

3.2 Google Drive-by Photos

- 3.2.1 Reproductions of Google Drive-by images are included in this report as SK09 to SK11 and are located in Appendix C.
- 3.2.2 A **2017** reproduction (SK09) from the southwestern corner on Victoria Road shows a residential house surrounded by pastoral land. In the distance are a number of large structures including grain silos.
- 3.2.3 A **2017** reproduction (SK10) from central Victoria Road shows a residential dwelling surrounded by pastoral land fenced with wooden western style fences.
- 3.2.4 A **2017** reproduction (SK11) from northern Victoria Road shows vegetation and vacant land in the foreground with large structures present in the background. Also present in the foreground is a sign showing 'Shoof'.

4.0 CONSULTATIONS AND LITERATURE REVIEW

4.1 Waikato Regional Council

4.1.1 The following information was obtained from the Waikato Regional Council (WRC) website:

- groundwater bores at the piece of land; and
- consents and or permits issued to the piece of land;

4.1.2 Groundwater bore data is presented in section 5.2.

4.1.3 Consents and/or Permits issued to the piece of land is outlined in Table 2: WRC Consents/Permits.

Table 3: WRC Consents/Permits

AUTHORISATION	DATE	TYPE	HOLDER	DETAILS
961142.01.04	2013	Discharge to Land.	Fonterra.	Discharge dairy factory waste and wastewater onto land.

4.2 Mr. Jeff McCray, Bardowie Farm Manager

4.2.1 Mr. McCray stated that he has been the farmer manager for the last five years. To his knowledge the site has been a dairy farm since inception. Prior to the early 1980's the site was two dairy farms and Fonterra purchased both farms and combined them into one.

4.2.2 Mr. McCray stated that the farm has not had a farm landfill during Fonterra ownership. He has never come across any remains of an old landfill or offal pit however, more than likely, historical landfills will be present at the site. A sand pit was located at the piece of land. Mr. McCray further stated that he has never come across any remains of an old cattle footbath

4.2.3 Mr. McCray stated that the only chemicals currently held or used on site are: petrol held in a 500 lt above ground tank; diesel, held in a 3,000 lt above ground tank; zinc blouses; magnesium bullets; and glyphosate. They are currently held, and more likely than not, have been held for some time in the buildings/yards in the southwestern corner as this is the main operating area. No fungicides or insecticides are used and to his knowledge superphosphate has not been applied since Fonterra took ownership. Lime and gypsum are applied once a year in April.

4.2.4 Mr. McCray stated that an asbestos audit was completed last year and no asbestos sheeting or cladding was identified at the site. None of the farm races have been constructed out of asbestos waste.

4.3 **Ms. Mary-Lou Hooker, Fonterra Irrigation Team Leader**

- 4.3.1 Ms. Hooker stated that a consent was issued by WRC in 2013 for the discharge of water that is used to clean the vats and factory floor. The water is treated via a dissolved air flotation system (DAF), which is a water treatment system that clarifies wastewater by removing the suspended solids. The only chemicals used in the vats and factory floor are cleaning chemicals, caustic soda and nitric acid. Therefore, the wastewater that is applied to the farm is basically water as the two chemicals balance out the pH.

4.4 **Mr Ben McKay, BCD Engineer**

- 4.4.1 Mr. McKay stated that he was on site on the 4 June 2018 and noted two above ground fuel tanks: a 500 lt petrol tank supported on a metal frame; and a 3,000 lt diesel tank supported on grade. No significant oil staining was noted beneath either tank.

4.5 **BCD Group, Pre-Purchase Geotechnical Investigation, June 2018**

- 4.5.1 The excavation of bore holes at the site documents a layer of topsoil down to 1.8 metres in places overlying natural sands interbedded with silt and clays.
- 4.5.2 Groundwater was encountered in several bores at depths ranging between 1.9 metres bgl and 3.2 metres bgl.

5.0 GEOLOGY, HYDROGEOLOGY AND HYDROLOGY

5.1 Geology

- 5.1.1 The BCD Group Geotechnical Investigation June 2018, documents topsoil or uncontrolled fill overlying natural sands interbedded with silts and clays.

5.2 Hydrogeology

- 5.2.1 The BCD Group Geotechnical Investigation June 2018, documents a shallow groundwater system at depths ranging between 1.9 metres bgl and 3.2 metres bgl.
- 5.2.2 Bores issued to the piece of land document both a shallow groundwater system and a deep groundwater beneath the piece of land as documented in Table 4: Bores Issued to the Piece of Land.

Table 4: Bores Issues to the Piece of Land

BORE	BORE DEPTH	SCREEN DEPTH
70_05	6.75 m	4.75 m
70_06	7.94 m	5.93 m
70_10	8.08 m	6.08 m
70_11	6.57 m	4.9 m
70_12	5.33 m	
70_13	6.59 m	5.07 m
70_14	5.48 m	3.90 m
70_16	7.01 m	5.12 m
70_17	6.40 m	3.64 m
70_18	5.8 m	
70_165	63.39 m	51.8 m
70_1024	85.3 m	71.6 m
70_1026	117.7 m	87 m
70_1027	181.6 m	21 m
70_1028	103 m	63 m
70_1032	86 m	74.5 m
72_5977	79.6 m	55 m

5.3 Hydrology

- 5.3.1 The nearest surface water is the Mangaone Stream and associated wetlands which is located directly to the north of the piece of land on adjacent pastoral land.

6.0 EVALUATION

6.1 History

6.1.1 Aerial Photos

6.1.1.1 Aerial photos from 1943 to 1979 document the piece of land as pastoral land with a group of buildings including a milking shed in the southwestern corner, a group of buildings in the northwest and residential dwellings in the west. All photos document a potential wetland in the southeastern corner. The 1953 photo documents a large pit in the centre of the piece of land.

6.1.1.2 An aerial photo from 2008 document the piece of land as predominantly pastoral land with a group of building including a residential dwelling, a milking shed and circular objects in the southwestern corner, an effluent pond in the northeast, a life style block in the central west and industrial buildings in the central northwest.

6.1.2 Google Drive-by

6.1.2.1 A Google drive-by images from 2017 documents the main congregation of farm buildings including silos in the southwestern corner, a lifestyle block in the central west and industrial buildings in the central northwest occupied by Shoof.

6.1.3 Consultation

6.1.3.1 The current farm manager Mr. McCray stated that the piece of land has been a dairy farm since inception and Fonterra have owned the piece of land since the early 1980's. Since Fonterra ownership no landfilling has occurred and no superphosphate has been applied to the land. A 500 It above ground petrol tank and a 3,000 It above ground diesel tank are located in the yards in the southwestern corner. Zinc blouses; magnesium bullets; and glyphosate is used at the site. Mr. McCray has never observed historical landfills, offal pits or cattle footbaths on the piece of land. No asbestos sheeting or cladding is present on any of the buildings. The pit on site was a sand pit.

6.1.3.2 Ms. Mary-Lou Hooker, Fonterra Irrigation Team leader stated that treated wastewater is applied to the farm

6.1.3.3 A recent site visit by a BCD Group Engineer noted no significant soil staining beneath either fuel tank.

6.1.4 Literature Review

6.1.4.1 A geotechnical report by BCD Group documents that fill material from Appleby Pond was used to infill two borrow pits in the southeastern corner.

6.2 Potential Ground Contaminants

Pastoral Land

6.2.1 Pastoral land from at least 1943 to present. Whilst pastoral farming is not considered to be HAIL, farming activities of livestock dipping, landfilling, chemical storage (including offal pits), fuel storage, persistent pesticide application (DDT and Dieldrin to control grass grub) and the intentional or accidental release of a cadmium in superphosphate and zinc in facial eczema remedies, are.

6.2.2 Livestock Dipping, Landfilling, Chemical Storage

6.2.2.1 Aerial photos and anecdotal information documents that the piece of land has not been occupied by structures associated with livestock dipping.

6.2.2.2 Anecdotal information documents that landfilling has not occurred since the early 1980's and no evidence has ever been found however, it may have occurred in the past.

6.2.2.3 Anecdotal information documents that no chemicals other than zinc boluses, magnesium bullets and glyphosate have been stored at the piece of land since the early 1980's. Zinc boluses and magnesium bullets are not considered to be a hazardous activity in this state. Glyphosate is addressed in section 6.3.4.

6.2.2.4 Therefore, landfilling may have occurred at the piece of land and is considered to be a potential contaminant source.

6.2.3 Fuel Storage

6.2.3.1 Anecdotal information documents two above ground petroleum tanks are present in the yard in the southwestern corner.

6.2.3.2 Therefore, storage of fuel has occurred at the piece of land.

6.2.4 Persistent Pesticide Application

6.2.4.1 DDT is the most well known persistent pesticide. DDT was used on pastoral land in New Zealand from 1947 until 1970 when it was banned from use on pasture.

6.2.4.2 The WRC Report titled *Historic Pesticides Residues in Horticultural and Grazing Soils in the Waikato Region*, Sally Gaw, 2003, documents a DDT high of 0.75 mg/kg for pastoral land. When this value is compared to the NES rural residential landuse soil guideline value (SGV) for DDT of 45 mg/kg, DDT and other organochlorines are not considered to be potential ground contaminants at the piece of land.

6.2.4.3 Glyphosate is stored and used at the piece of land. The United States of America Pesticides Action Network Pesticide Chemical Database website documents glyphosate has a soil half life of 96 days. Using the soil half life equation in the United States of America National Pesticide Information Centre's website it would take approximately 672 days for glyphosate to no longer be present in soil. As a result it is not considered to be a persistent pesticide and therefore it is not considered to be potential ground contaminant at the piece of land.

6.2.5 Accidental Release of Hazardous Substances - Cadmium

6.2.5.1 It is not know if superphosphate was applied to the land prior to Fonterra ownership. Superphosphate contains high concentrations of cadmium.

6.2.5.2 The WRC Technical Report 2005/51 *Cadmium Accumulation in Waikato Soils*, Dr. Nick Kim, 2005 documents for pastoral land a Cadmium average of 0.70 mg/kg and a cadmium high of 1.5 mg/kg. When these concentrations are compared to a NES rural residential landuse scenario (SGV) for cadmium of 3 mg/kg, the accidental release of cadmium from superphosphate application is not considered to be a potential ground contaminant at the piece of land.

6.2.6 Accidental Release of Hazardous Substances – Zinc and Magnesium

6.2.6.1 Zinc boluses and magnesium bullets have been given to stock that grazed the piece of land. Therefore, zinc and magnesium may have been passively released by stock onto the land.

6.2.6.2 The WRC Report titled *Historic Pesticides Residues in Horticultural and Grazing Soils in the Waikato Region*, Sally Gaw, 2003, documents a zinc high of 58 mg/kg for pastoral land. When this value is compared to a NES approved landuse scenario SGV for zinc of 200 mg/kg, the accidental release of zinc is not considered to be a potential contaminant at the piece of land.

6.2.6.3 A SGV for magnesium was unable to be found and therefore is considered to be non-limiting to human health.

Shoof International

6.2.7 According to Shoof International's website, they are a developer, manufacturer, importer and exporter of agricultural and veterinary equipment.

6.2.7.1 It is not known what type of manufacturing occurs at this premises however, based on the website it more than likely involves engineering and plastic intrusion.

- 6.2.7.2 In addition, historical photos document that prior to Shoof occupying this part of the piece of land, it was 'more likely than not' occupied by farm buildings not associated with Bardowie Farms and as such some of the above farming activities may have occurred.

Conclusion

- 6.2.9 Based on the above information the potential likely contaminants at the piece of land are considered to be:

- metals, organophosphates – historical landfills;
- hydrocarbons – above ground fuel tanks;
- metals – engineering; and
- chemical storage – plastic intrusion.

6.3 HAIL Assessment

- 6.3.1 It is considered that HAIL G.3 – landfill sites; is occurring at the piece of land.
- 6.3.2 It is considered that HAIL A.17 – storage tanks for fuel and chemicals; is occurring at the piece of land.
- 6.3.3 It is considered that HAIL D.5 – engineering workshops; maybe occurring at the piece of land.

6.4 Conceptual Piece of Land Model

- 6.4.1 A Conceptual Piece of Land Model for the proposed plan change to industrial is presented in Table 6: Conceptual Piece of Land Model.

Table 6: Conceptual Piece of Land Model

ELEMENTS		CONTAMINANTS
HAZARD		Metals, organophosphates and hydrocarbons.
PATHWAY	Stormwater	None – the current proposal is for a plan change only which, will not result in a more sensitive land use or development, including intrusive site works, occurring.
	Groundwater	
	Contact	
RECEPTOR	Human Health	Site workers. Maintenance workers.
	Ecological	On the piece of land – aquatic organisms. Off the piece of land – nil.
	Built	None.
RISK	Human Health	LOW.
	Ecological	
	Built	

6.4.2 The Conceptual Site Model documents a low risk to human health and the environment as contaminant pathways are considered to be incomplete for plan change as nothing is to change on the piece of land at this point time.

6.5 Risk Assessment

6.5.1 The Conceptual Site Model clearly documents a low risk to human health, the environment and the built environment as a result of a plan change on this piece of land.

6.5.2 Therefore, it is considered that a full risk assessment is not required at this point in time as there is no risk to human health. A DSI shall be required if the landuse changes to a more sensitive use such as a day care centre or residential. A Works Management Plan should be completed prior to any intrusive works occurring if the landuses does not change to a more sensitive landuse.

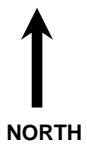
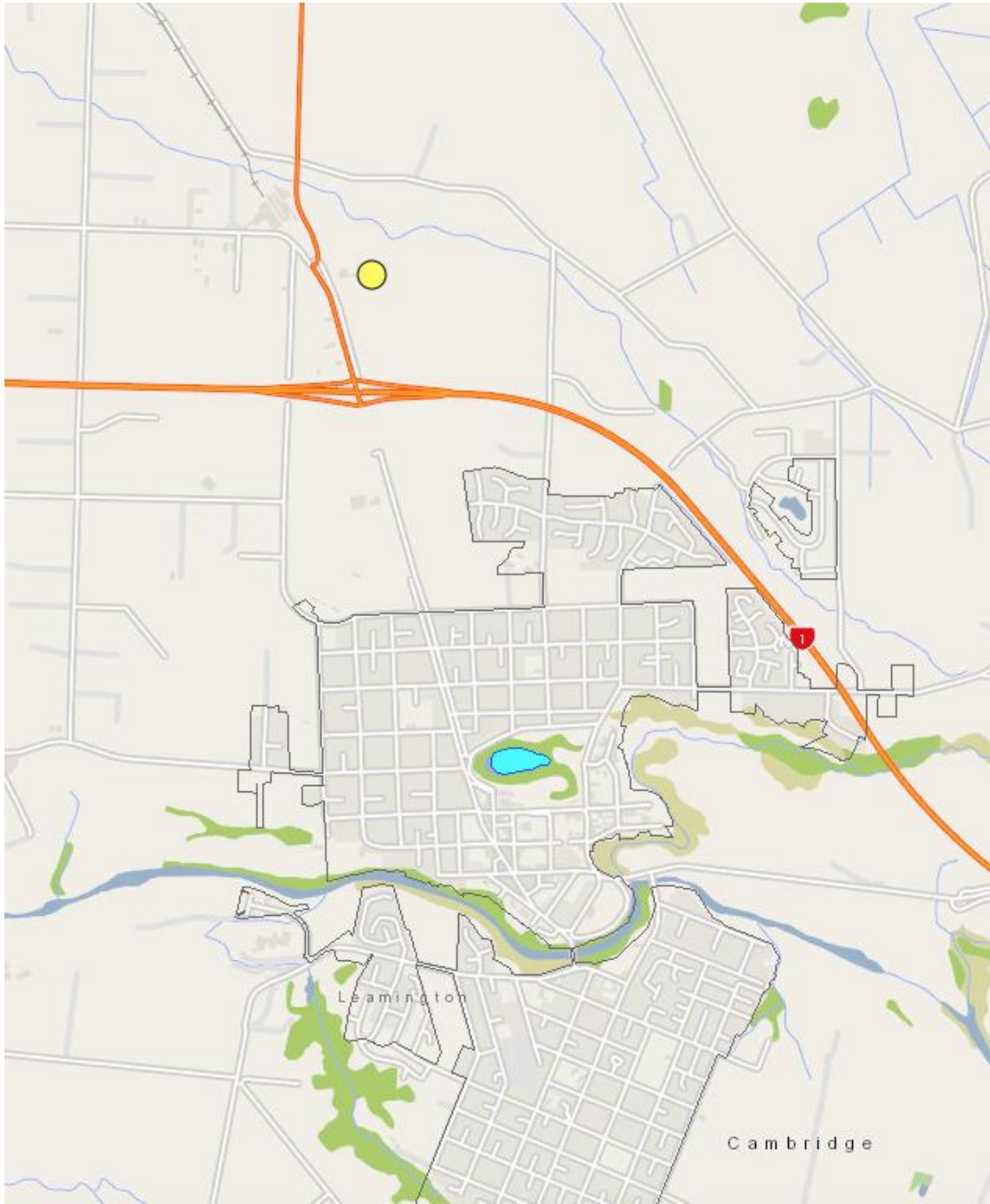
7.0 CONCLUSION AND RECOMMENDATIONS

7.1 Conclusion

- 7.1.1 The purpose of this investigation was to determine if HAIL has occurred or is occurring at 140 – 224 Laurent Road, Cambridge and if yes the potential risk to human health and the environment. It is understood that a plan change is sought for the piece of land.
- 7.1.2 A desk top investigation by Guy Sowry of CSI comprising: a review of historical photos and consultation, documents that the following HAIL has is present at the piece of land or 'more than likely' occurring at this piece of land:
- G.5 Landfill sites;
 - HAIL D.5 – engineering workshops; and
 - A.17 Drums for fuel.
- 7.1.3 The Conceptual Piece of Land Model documents a **LOW** risk to human health and the environment as a result of a plan change as nothing is going to physically change at this point in time. The above HAIL do not pose a risk to human health at this point in time as a more sensitive land use or development, including intrusive site works, is not occurring.

7.2 Recommendations

- 7.2.1 That Waipa District Council and Waikato Regional Council record the piece of land on their respective selected land use registers as '*Verified HAIL – no sampling*'.
- 7.2.2 A DSI shall be required if the landuse changes to a more sensitive use such as a day care centre or residential.
- 7.2.3 A Works Management Plan should be completed prior to any intrusive works occurring if the landuses does not change to a more sensitive landuse. The plan shall address how any hazards/contaminated soil shall be removed from the site, potential contamination delineated and final validation.



NORTH

CSI
Contaminated Site Investigations
34 Brookfield Street
Hamilton

140 – 224 LAURENT ROAD, CAMBRIDGE

FIGURE 1

PIECE OF LAND LOCATION



CSI Contaminated Site Investigations 34 Brookfield Street Hamilton	140 – 224 LAURENT ROAD, CAMBRIDGE
	FIGURE 2
	PIECE OF LAND PLAN

APPENDIX A

REPORT CONDITIONS

This report is prepared solely for the benefit of Bardowie Investments Ltd and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report refers, with the limitations stated, to the conditions of site at the time of the investigation. No warranty is given as to the possibility of future changes in the condition of the site.

This report is based on aerial photos and consultation (anecdotal information). Some of the opinions are based on unconfirmed data and information and are presented as the best that can be obtained without further extensive research.

Whilst the findings detailed in this report reflect our best assessment, we are unable to give categoric assurances that they will be accepted by regulatory authorities without questions as such authorities may have unpublished more stringent objectives. This report is prepared and written for the proposed uses stated in the report and should not be used in a different context without reference to CSI. In time approved practices or amended legislation may necessitate a re-assessment.

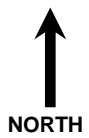
The report is limited to those aspects of land contamination specifically reported on and is necessarily restricted and no liability is accepted for any other aspects especially concerning gradual or sudden pollution incidents. The opinions expressed cannot be absolute due to the limitations of time and resources imposed by the agreed brief and the possibility of unrecorded previous use and abuse of the site and adjacent sites. The report concentrates on the site as defined in the report and provides an opinion on surrounding sites. If migrating pollution or contaminants (past or present) exists further research will be required before the effects can be better determined.

APPENDIX B

AERIAL PHOTOS



CSI Contaminated Site Investigations 34 Brookfield Street Hamilton	140 – 224 LAURENT ROAD, CAMBRIDGE
	SK01
	1943



NORTH

CSI Contaminated Site Investigations 34 Brookfield Street Hamilton	140 – 224 LAURENT ROAD, CAMBRIDGE
	SK02
	1953



CSI Contaminated Site Investigations 34 Brookfield Street Hamilton	140 – 224 LAURENT ROAD, CAMBRIDGE
	SK03
	1967



CSI Contaminated Site Investigations 34 Brookfield Street Hamilton	140 – 224 LAURENT ROAD, CAMBRIDGE
	SK04
	1974



CSI Contaminated Site Investigations 34 Brookfield Street Hamilton	140 – 224 LAURENT ROAD, CAMBRIDGE
	SK05
	1979



CSI Contaminated Site Investigations 34 Brookfield Street Hamilton	140 – 224 LAURENT ROAD, CAMBRIDGE
	SK06
	2008

APPENDIX C

GOOGLE DRIVE-BY IMAGES

Street View - Jun 2017



CSI Contaminated Site Investigations 34 Brookfield Street Hamilton	140 – 224 LAURENT ROAD, CAMBRIDGE
	SK07
	2013



CSI Contaminated Site Investigations 34 Brookfield Street Hamilton	140 – 224 LAURENT ROAD , CAMBRIDGE
	SK08
	2017

Street View - Jun 2017



CSI Contaminated Site Investigations 34 Brookfield Street Hamilton	140 – 224 LAURENT ROAD , CAMBRIDGE
	SK09
	2013