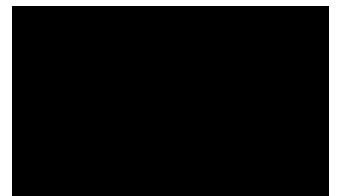


Preliminary Site Investigation
Stagecoach Rd, Tasman
Tahimana Ltd
June 2026



Quality Assurance

Title: Preliminary Site Investigation
Stagecoach Road, Tasman
Tahimana Ltd

Client: Tahimana Ltd

Reference: J00087-RPT-001-A- PSI_TahimanaLtd_v7

Version: v7

Date: 5 June 2026

Prepared By:

██████████
BSc



Reviewed By:

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PG Dip Business Management
CEnvP (Site Contamination)



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This document has been prepared for the benefit of The Client and Tasman District Council. No liability is accepted by this company or any employee or sub-consultant of this company with respect to its use by any other person.

The report authors record that they have read and agree to and comply with the Environment Court's Code of Conduct for Expert Witnesses as specified in the Environment Court's Practice Note 2023. This report is within the author's area of expertise, except where the report states that the author relies upon the reports of other experts. The authors have not omitted to consider any material facts known to them that might alter or detract from the conclusions reached.

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Appendix F: Hazardous Substances Accidental Discovery Plan

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1. Introduction

Envirolink has been engaged by Gina Grimwood of Tahimana Ltd (The Client) to prepare a Preliminary Site Investigation (PSI) for a property located between Stagecoach Road and Dickers Road in Tasman.

The project is to subdivide and develop land for the purpose of establishing a residential and rural lifestyle development on approximately 70 hectares of land off Stagecoach Road, Tasman, in the Tasman District. The project will include works within the Stagecoach Road, Dicker Road and Williams Road reserves.

The project will include:

- (a) subdivision to create approximately 145 allotments, including 4 allotments for reserve, roading and services, and enable construction of approximately 141 residential units across a range of densities;
- (b) development of an open space network including a public reserve and walkways, and upgrades to shared pathways;
- (c) landscape planting and restoration and enhancement of waterways and wetlands;
- (d) associated infrastructure, including for three waters services and transport (including external road upgrade works).

A proposed subdivision plan is provided in Appendix A.

The National Environmental Standard (NESCS) for Assessing and Managing Contaminants in Soil to Protect Human Health¹ requires a site investigation to be undertaken on properties that are undergoing a subdivision, a change of land use, or significant land disturbance on a potentially contaminated site. Before the local council can authorise such activities an assessment of the site must be undertaken. The land use history of the site is assessed against the Hazardous Activities and Industries List (HAIL). The HAIL is a list of activities and industries that have the potential to contaminate soil. The investigation will indicate whether the site is fit for the intended rural residential development, or if additional information is required.

This report assesses the current and historical activities undertaken at the site, and whether or not those activities pose a risk to current and future residential site users.

¹ Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

2. Objectives and Scope of Work

The objectives of this PSI are to:

- Identify potential historical and/or current sources of contamination within the site and immediate surrounding area;
- Identify potential contaminants of concern;
- Determine if an activity or industry described in the Hazardous Activities and Industries List is being undertaken, has been undertaken, or is more likely than not to have been undertaken on the site;
- If so, assess the likelihood of human health being at risk if the proposed activity is undertaken, and;
- Provide sufficient information to determine if a resource consent under the NESCS is required.

The following scope is proposed to achieve the above objectives:

- Desk-based review of available information including:
 - Regional geological and hydrological setting;
 - Historical aerial photography (available from TDC, Retrolens, and Land Information New Zealand (LINZ));
 - The property file; and
 - Any other relevant documents provided to Envirolink by the client.
- Site walkover/inspection;
- Production of a conceptual site model to facilitate risk assessment;
- Production of this PSI report summarising the above and consistent with the requirements of CLMG No. 1 - Reporting on Contaminated Sites in New Zealand (Revised 2021).

The recommendations included in this investigation will accompany any resource or building consent applications that are required for future development and provide a reference to contractors and maintenance workers working on the property.

3. Site Conditions and Surrounding Environment

3.1 Site Identification and Setting

The site of the proposed subdivision is located on the eastern side of The Coastal Highway - State Highway 60 (SH60) between Mapua and Motueka in the Tasman Region. It is approximately 11km south of Motueka. The relevant property information is shown in Table 1 and the location is shown in Figure 1, where the property boundary is shown in yellow.

Table 1 – Property information

Site Address	Stage Coach Road, Tasman
Locality	Tasman, 7173
Owner	Tahimana Ltd
Legal Description	Lot 1 DP 4507278 and Lot 3 DP 450728
LINZ ID	7370893 and 7370895
Property Area (Hectares)	68.0328
Map Reference (NZTM2000)	Easting: 1604342 Northing: 5436793

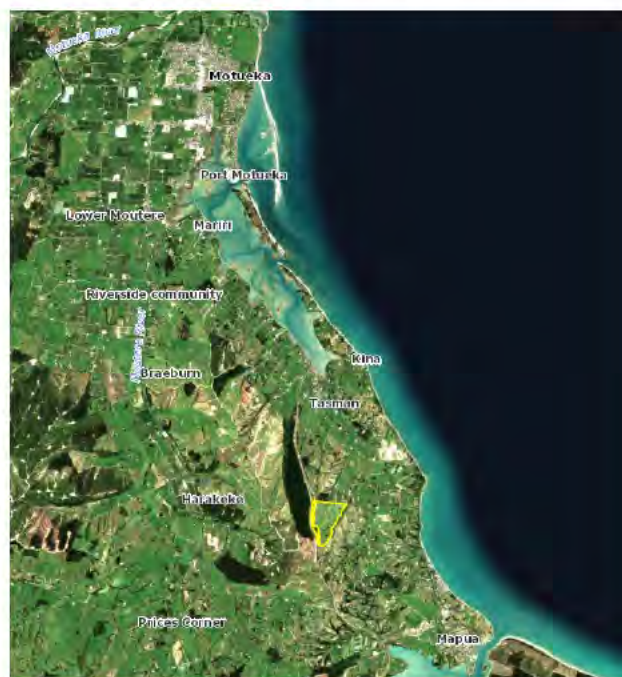


Figure 1 – Property location (shown in yellow)

The current use of the property is pastoral farming. A small number of sheep were being grazed at the time of the site walkover in 2022. An aerial image of the property is shown in Figure 2 below.



Figure 2 – Layout of property

This site is zoned as Rural 3 under the Tasman Resource Management Plan (TRMP), as are the surrounding properties on the eastern side of SH60. The Rural 3 zone is noted to contain varying levels of productive land value. The Rural 3 zone rules have been developed to accommodate rural residential development whilst offering protection to the most productive land areas.

3.2 Site Description

A site walkover was conducted on 22nd September 2022. Selected photos are presented in Appendix B for reference.

The site is located in a mostly rural area on rolling hill country within the Tasman Region. It is approximately 100 m above sea level (asl) in the southwest corner and dropping to 50 m asl in the northeast corner. The property is currently in pasture, and there are several fenced paddocks used for small scale sheep production. There are a number of small waterways onsite at the base of gullies, with a belt of established wetland immediately beyond the eastern boundary. The small streams were all flowing at the time of the site walkover in 2022 however they are likely to be ephemeral and dry up in the summer months.

There are no buildings on site, and there was no obvious historic landfills, dumping areas, or other areas of concern identified during the site walkover.

The only notable feature observed whilst onsite was the presence of sheep yards. These appeared to be of a modern construction, with no obvious signs of a historic sheep dip. These were not visible in the historic aerial images until 2012 and were absent in 2011, so presumably were constructed sometime between 2011 and 2012.

The surrounding land uses are predominantly mixed rural and rural residential. To the north is farm land used for grazing and horticulture, and towards the east and south are rural residential (lifestyle) properties. On the western side of SH60 is plantation forestry that has largely and recently been harvested and replanted for grazing.

Access to the site is via Stagecoach Road from the south and Dickers Road from north. Both roads are unformed prior to the site boundaries. There is a private access across the wetland on the eastern boundary that joins with Westmere Drive.

The site layout and notable features are shown in in Figure 3.



Figure 3 – Notable property features, with sheep yards shown in inset.

3.3 Geological and Hydrological Setting

The published site geology from the GNS Science 1:250k web map for New Zealand² shows the site to be underlain by poorly to moderately well sorted clay bound gravel containing up to boulder sized clasts of quartzofeldspathic sandstone geological units (Moutere Gravel).

A fault described as inactive, intercepts the northwest corner of the property.

The nearest major surface waterbody to the property is Moutere River which is approximately 4km to the West, and the coastal margin lies approximately 2.5km to the East just south of the Moutere Bluff.

Hydrogeology for the development, including groundwater flow direction and level has been investigated by Pattle Delamore Partners Ltd (PDP). A groundwater monitoring bore (WWD24683) was drilled under PDP's supervision for the purposes of assessing groundwater levels and flow. Two standpipes were also installed to assess hydraulic connection to wetlands on the site. There are no other groundwater bores present on the site. The PDP report, *Tahimana Subdivision: Fast Track Hydrogeology Assessment (May 2026)*³ concludes shallow groundwater flows are typically from south to north, broadly similar to the direction of surface water flow.

The PDP report notes, based on TDC's database, that static water levels range from 4.4 m below ground level (bgl), as recorded in a nearby shallow bore (ID 23700 being 21 m total depth) and 20.7 – 37.5 m bgl in nearby deeper bores (102 m – 176 m total depth) which are located within 1 km of the site.

The PDP report should be read in conjunction with this report for further information on wetlands, surface water, and groundwater at the site.

Groundwater is not considered a sensitive exposure pathway with regard to potential ground contamination.

² <https://data.gns.cri.nz/geology/>

³ Pattle Delamore Partners Ltd, May 2026. *Tahimana Subdivision: Fast track Hydrogeology Assessment*. Prepared for Tahimana Limited. Issue Date: May 2026. Job Reference: C04732500.

4. Site History and Historical Record

4.1 Historical Aerial Photographs

A review of historical aerial photographs (1940 to 2021) available from Retrolens, Google Earth, TDC and LINZ was undertaken as part of this assessment. Aerial Photographs assessed are presented in Appendix C.

Table 2 below summarises the site history from reviewed photographs.

Table 2 – Historic aerial photograph descriptions

Year	Description
1940	Mostly pasture and some possible pockets of horticulture activities, no glasshouses or sheds identified.
1946	Mostly pasture and some possible pockets of horticulture activities, no glasshouses or sheds identified.
1958	Change from pasture growth to landscape dominated by trees.
1967	Increase in tree growth.
1969	No notable changes, property is dominated by tree growth.
1981	Partial tree felling underway at the southern extent of property.
1985	Whole property has been cleared of trees, looks to have been replanted in pine. Area identified as cleared in 1981 look to have more mature tree growth.
2000	Trees removed, now bare land.
2003	Property in trees, no notable changes.
2011	Property in pasture, sheepyards absent
2012	Property in pasture, Sheep yards present
2018	No notable changes
2021	No notable changes

4.2 Property File

The property file obtained from TDC in 2022 for the site was reviewed. The only notable entry was records of the locations used by New Zealand Transport Agency (NZTA), for the disposal of surplus fill and spoil during the construction of the Ruby Bay Bypass which was opened in 2010. The letter⁴ to TDC (dated 26th February 2013) from agents acting on behalf of NZTA details three locations on this property used as fill sites which are shown in Figure 4 below.

⁴ The Property Group, February 2013. *Waste Spoil Dump Sites: Ruby Bay Bypass: Disposal of Land.*

The letter indicates that some disposal sites were used for the disposal of marine sediment and these site covered by resource consents, however the balance of sites are not. The letter details no formal process was in place for recording the exact nature of the fill disposed of at each site, but indicative notes are provided on the specific drawings. It specifies the bulk of the material was in the form of topsoil, Moutere gravels, tree slash, and small amounts of chip seal. Notes on the three disposal locations on this property indicates forestry slash has been buried at depths of 4 m and 6 m.

Based on this advice, and the annotations on the photographs, it has been assumed in the absence of further detail, that there is nothing of contamination significance present in these locations. It should also be noted that these areas are beyond the proposed development footprint (refer to Appendix A).

This letter is attached as Appendix D.

There were no other relevant information identified in the property file.



Figure 4 – Excerpt from letter to TDC “Waste Spoil Dump Sites from the construction of The Ruby Bay Bypass (February 2013)”

4.3 Summary of Potentially Contaminative Land Uses

A review of the history of the site indicates there were no clear or obvious hazardous activities or industries that have, or were likely to have, previously occurred at the site. The sheepyards were constructed post 2011, and there was no evidence of a sheep dip. The site is absent from the construction of sheds, dwellings or other buildings as far back as the historic aerial image record exists (1940).

The property file indicates there may have been some filling on the site associated with the highway construction. However, this is outside the development area, and notations contained in the

property file indicate this is forestry slash. It is also possible that at some stage since 1940 waste materials were buried on site. This would be difficult to identify through an historical aerial photo review, and site walkover. The indicative locations are beyond the development footprint. Given this, such activities are considered low risk and, if encountered, can be managed through an 'hazardous substances accidental discovery plan'.

One area within the site showed possible remnant orchard trees or horticultural activity in the earliest possible image from 1940 and this was still indicated in 1946. There was no evidence of such activity in the 1958 image. Figure 5 shows the areas observed in 1940.



Figure 5 – Areas of interest from the 1940 aerial image

5. Conceptual Site Model

The conceptual site model (CSM) has been developed from an assessment of sources of contaminants associated with the agricultural industry, potential exposure pathways and feasible receptors. Potential receptors have been assessed on the assumption that the site will be substantially redeveloped. Table 3 presents the contaminant linkages and risk assessment at the site.

The current use of the land for grazing areas as production land is not considered under the NESCS.

The future receptors that are considered to be potentially at risk are construction workers during the development stage of the project and future home occupants.

Table 3 – Conceptual site model

Source (HAIL Category)	Associated Contaminants	Combined Pathways	Receptor	Risk Assessment
Buried waste/uncontrolled fill (G5)	Various	Inhalation Ingestion	Future site users (residential)	Unlikely as located beyond the development footprint. If encountered can be managed via an 'hazardous substances accidental discovery plan' during construction
Sheep Dip/treatment (A8)	As, Cu, Zn, OCP	Dermal Contact		Unlikely, no evidence of a sheep dip identified adjacent to stockyards
Horticulture (A10)	As, Cu, Pb, OCP	Consumption of homegrown produce		Possible, an area of possible horticulture identified in 1940s image

6. Preliminary Soil Sampling

6.1 Soil Samples

The earliest historic aerial imagery (1940) identified two areas that may have been planted in orchard trees; however, they may alternatively represent plantation forestry or vegetation unrelated to agricultural activities. The planting pattern was not typical of an apple orchard of that era and, therefore, the evidence supporting historic orchard use is not considered strong.

Contaminated Land Management Guidelines (CLMG) No 5⁵ provides for preliminary sampling to be undertaken to support the conclusions determined in the PSI.

Preliminary soil samples were collected from the two areas that may have contained orchard trees as seen in the 1940 and 1946 aerial images (shown in Figure 5). Samples were located in the footprint that had been strategically planted in the historic aerial images and collected from the areas that appeared the most modified. All samples collected were surficial soil samples (0 – 75 mm below current ground levels). The soil sample locations are shown in Figure 6.

The results are compared the NESCS standards for a rural residential land use and the background concentrations for the Nelson Tasman region⁶.

Samples were collected on 19 October 2022. The samples were delivered to Hill Laboratories (Hills) by overnight courier within 24 hours of being collected. Each sample was analysed for arsenic, copper and lead. All quality assurance protocols were adhered to when collecting the soil samples. The sample results are presented in Table 4, and the Hill Laboratories Certificate of Analysis is attached as Appendix E.

The sample results report that contaminants of concern (specifically arsenic, copper and lead) are not present at concentrations greater than the NESCS standards for a rural residential land use from the areas identified that may have contained orchard trees as early as 1940.

Sample results are also reported at concentrations less than the regional background concentrations for the Tasman region.

⁵ Ministry for the Environment. 2021. Contaminated land management guidelines No 5: Site investigation and analysis of soils (Revised 2021). Wellington: Ministry for the Environment.

⁶ Cavanagh, J., (2015). Background concentrations of trace elements and options for managing soil quality in the Tasman and Nelson Districts. Envirolink Advice Grant: 1555-TSDC110

Soils from within the area of interest (that may have contained orchard trees as early as 1940) are considered to be low risk in the context of the proposed rural residential development.



Figure 6 – Soil sample locations (approximate) on 1946 aerial overlay

Table 4 – Soil sample results

Sample Number	Sample Location (NZTM)	Arsenic	Copper	Lead
TH1	1604500E 5436289N	<2	3	4.3
TH2	1604521E 5436315N	<2	3	3.8
TH3	1604538E 5436341N	<2	3	3.4
TH4	1604156E 5436515N	<2	<2	2.6
TH5	1604139E 5436425N	<2	3	4.5
TH6	1604081E 5436525N	<2	<2	4.7
TH7	1604266E 5436472N	<2	3	4.5
TH8	1604197E 5436444N	<2	2	3.4
TDC Regional Background	N/A	9.5	55	21
NESCS Standard (Rural Residential)	N/A	17	>10,000	160

Notes: All concentrations reported as mg/kg

7. Planning Considerations

This PSI has not identified any hazardous activities or industries that have, or are likely to have, been undertaken on the property as listed on the HAIL. As such, the site is not considered to be a 'piece of land' to which the NESCS applies.

The proposed subdivision would introduce new receptors and change the site risk profile; however, no hazardous activities or industries associated with the property were identified during this PSI.

Accordingly, this PSI concludes that it is unlikely that the proposed subdivision, change in land use, and any associated land disturbance activities would pose a risk to human health in the context of current and future site users.

There remains a low risk that contaminated material may be present in isolated buried locations on the property. This risk can be appropriately managed through the implementation of the Hazardous Substances Accidental Discovery Plan during construction works. The Hazardous Substances Accidental Discovery Plan for the project is attached as Appendix F.

Based on the findings of this PSI, the site is not considered to be a 'piece of land' under Regulation 5 (7) of the NESCS. Accordingly, the NESCS does not apply to the proposed activities, and resource consent under the NESCS is not required.

8. Conclusions

Envirolink has been engaged to prepare a PSI for a proposed rural residential subdivision located between Stagecoach Road and Dickers Road, Tasman, covering approximately 70 hectares. The development includes around 145 allotments (including reserves and infrastructure), being approximately 141 residential units, open space networks and walkways, landscape planting and wetland enhancement, and associated three waters and transport infrastructure upgrades.

A review of the site history indicates it has been primarily used as pasture for production land and forestry plantation since the earliest available records in 1940. The site layout has not been substantially altered in that period.

This PSI did not identify any previous HAIL activities as having occurred, or as being likely to have occurred, on the site. The existing stockyards are of modern construction first appearing in the historic aerial images in 2012; there was no evidence of a sheep dip or spray.

Areas identified as having been subject to possible previous horticultural activities in the 1940 and 1946 aerial images were investigated through preliminary sampling. The sample results confirm the concentrations of contaminants of concern (specifically arsenic, copper, and lead) are below the rural residential land use standards in the NESCS, and the TDC regional background levels.

There is a possibility of encountering buried waste on the site, however the potential risk of this is considered to be low. If buried waste is encountered, it can be managed through a 'hazardous substances accidental discovery plan' which is attached to this document.

It is considered this site does not pose an unacceptable risk to the human health of current or future users based on the proposed site usage.

Based on the findings of this PSI, the site is not considered to be a 'piece of land' under Regulation 5(7) of the NESCS. Accordingly, the NESCS does not apply, and resource consent under the NESCS is not required.

9. Certifying Statement

I, Martyn O'Cain of Envirolink Ltd certify that:

1. 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) Regulations 2011 because it has been:
 - a. done by a suitably qualified and experienced practitioner, 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.

For activities under R 8(4) of the NESCS this preliminary site investigation concludes it is highly unlikely that there will be a risk to human health if the proposed activity is done to the piece of land.

The activity to be undertaken as defined in R 5(5) and R 5(6) is described on throughout this preliminary site investigation.

Evidence of the qualifications and experience of the suitably qualified and experienced practitioner(s) who have done this investigation and have certified this report is appended to the preliminary site investigation report (Appendix G).

Signed and Dated:



29/05/26

Martyn O'Cain
MSc (hons) Environmental Science
PG Dip Business Management
CEnvP (Site Contamination)



10. Report Limitations

This report has been prepared solely for the purposes of the client, the fast track panel and TDC. The information contained herein is confidential and shall not be passed on to any third party without prior written permission of Envirolink. No responsibility is accepted for any use outside the scope of this report.

This report has been prepared based on site conditions as they exist at the time of the investigation. If subsequent investigations or remedial actions are undertaken from the date of this report, then certain aspects of this report may no longer be relevant or require amendment. In addition, if HAIL activities occur on the site after the date of this report, then the conclusions and recommendations presented in this report may no longer be relied on.

Please note that original site walk over occurred in October 2022. It is understood that the use of the site has not changed between October 2022 and May 2026 and no hazardous activities or industries have occurred during that time.

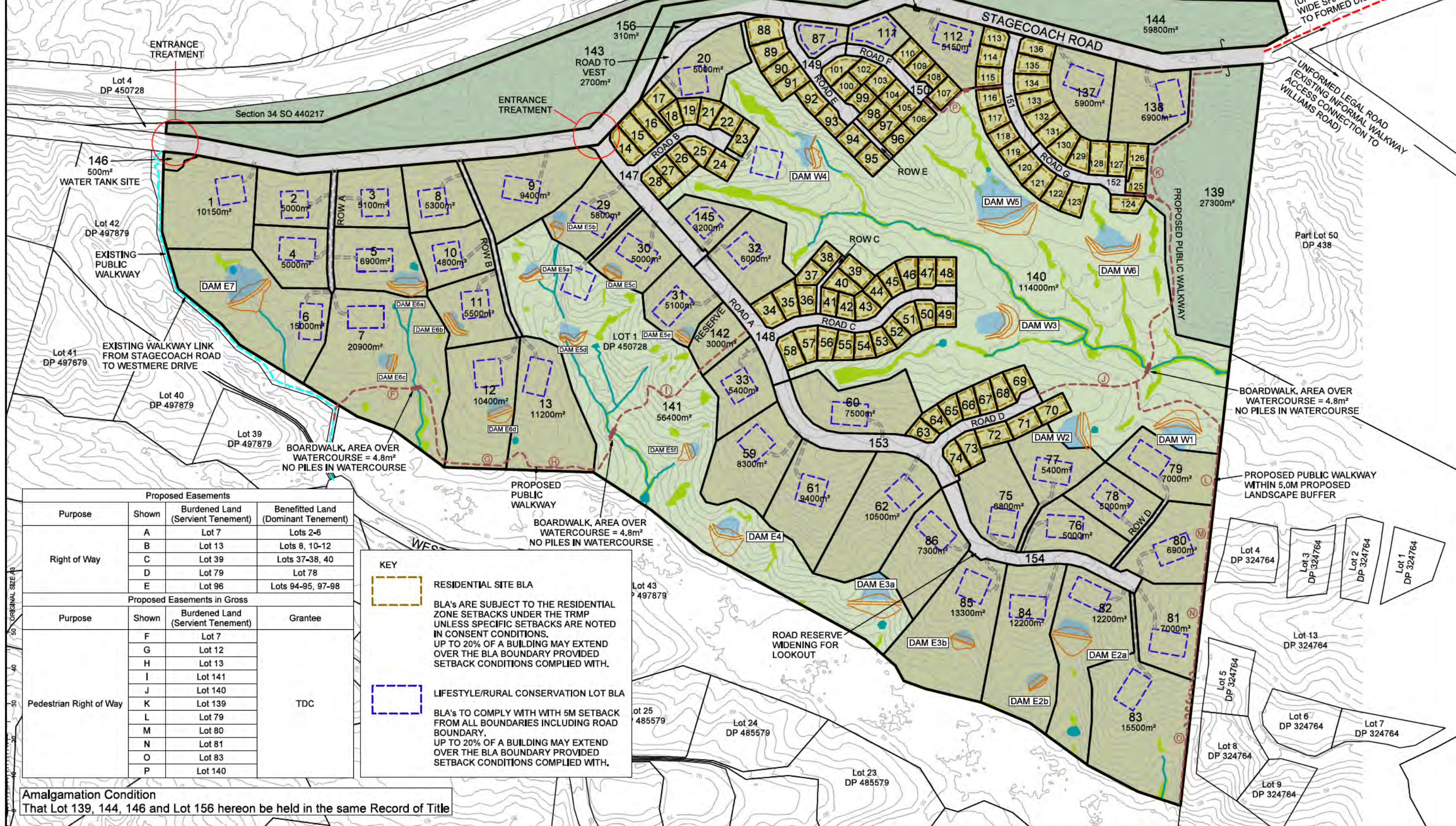
Discussion on the sampling methods and results in this report are based on current recognised guidelines, trigger values and / or recognised exposure pathway scenarios. These methods and assessment criteria may change and concentrations of a contaminant, which are currently deemed acceptable, may in the future become subject to new or updated standards. This may cause the contaminant concentrations to become unacceptable and require further management or remediation to enable the site to be deemed suitable for existing or proposed land use activities.

This investigation was carried out solely for the purpose of assessing contaminants in the soil associated with the land being suitable for human occupation only. It has purposely not assessed the possible impacts of contaminants on ecological values that may be associated with the site. Any other investigations that are required to determine the suitability of this property are outside the scope of this report.

This report has not considered the potential impact of the development on ecological values.

Appendix A – Subdivision Plans

- NOTES :**
- 1) DO NOT SCALE FROM DRAWING.
 - 2) AREAS AND DIMENSIONS ARE APPROXIMATE ONLY AND SUBJECT TO FINAL SURVEY.
 - 3) **THIS IS A SUBDIVISION PROPOSAL PLAN ONLY.**
 - 4) A SUBDIVISION CONSENT HAS NOT ISSUED FOR THIS PROPOSED LAYOUT. CONFIRMATION OF THE LAYOUT CAN ONLY BE ACHIEVED THROUGH THE ISSUE OF A SUBDIVISION CONSENT.
 - 5) ADDITIONAL EASEMENTS MAY BE REQUIRED.
 - 6) **AERIAL PHOTOGRAPHY IS FOR CONTEXT ONLY.**



Appendix B – Site Photographs



Photo 1: Sheepyards



Photo 2: Rolling hill country on the property looking East



Photo 3: Rolling hill country and wetland feature



Photo 4: Rolling hill country looking East



Photo 5: Stream boundary



Photo 6: Wetland feature



Photo 7: Stream



Photo 8: Rolling hill country

Appendix C – Historical Aerial Images

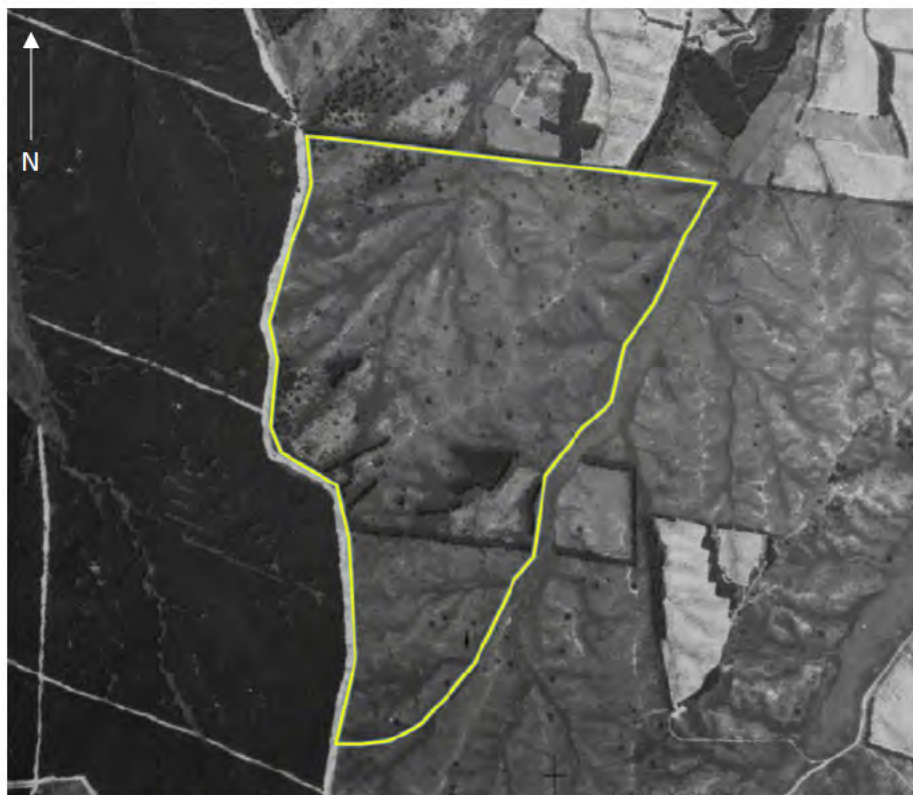


Photo 9: 1940 (Retrolens)

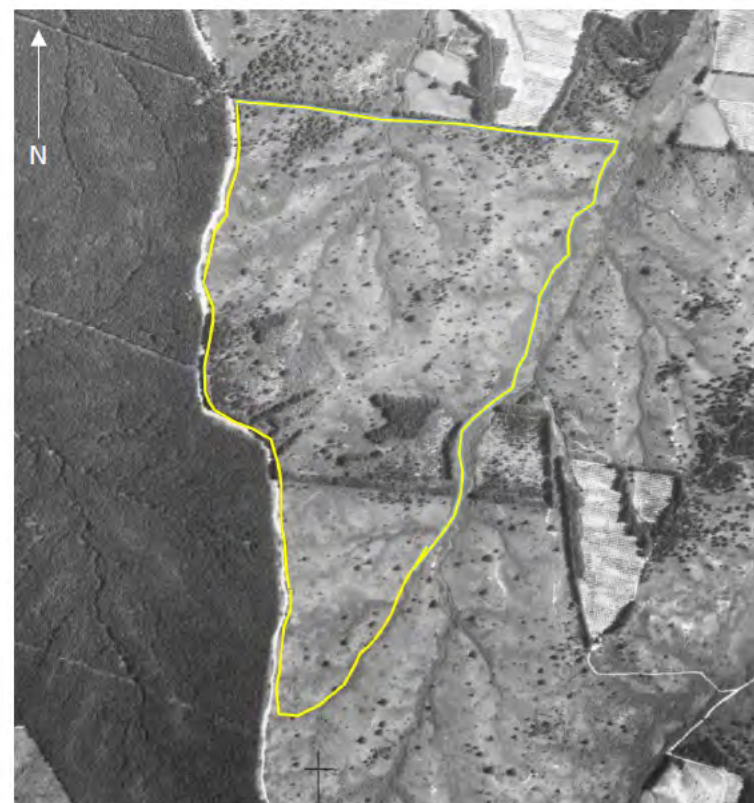


Photo 10: 1946 (Retrolens)

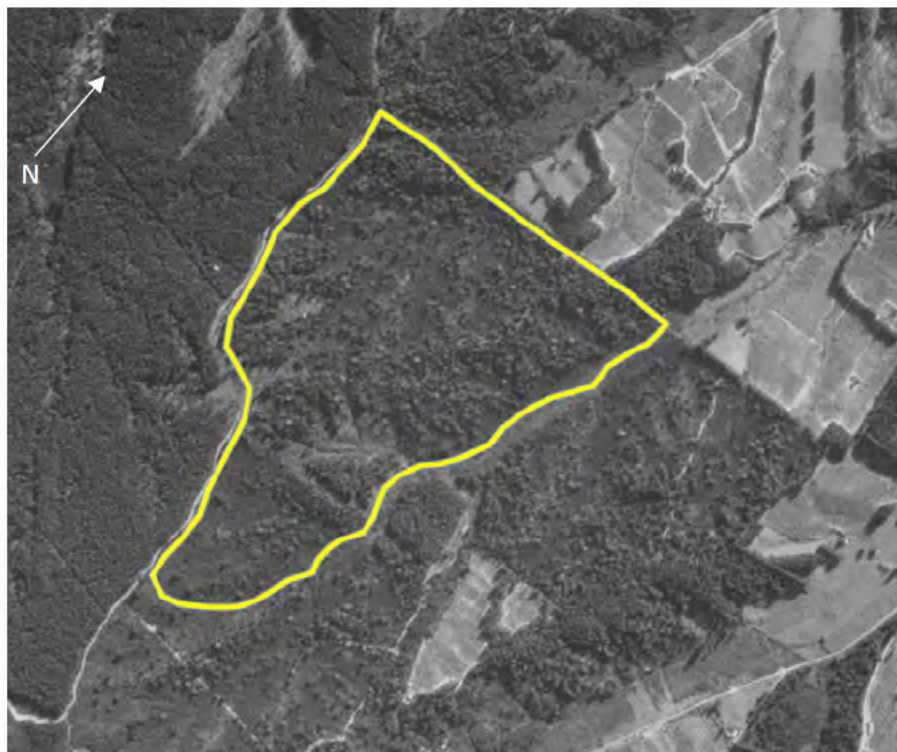


Photo 11: 1958 (Retrolens)



Photo 12: 1967 (Retrolens)

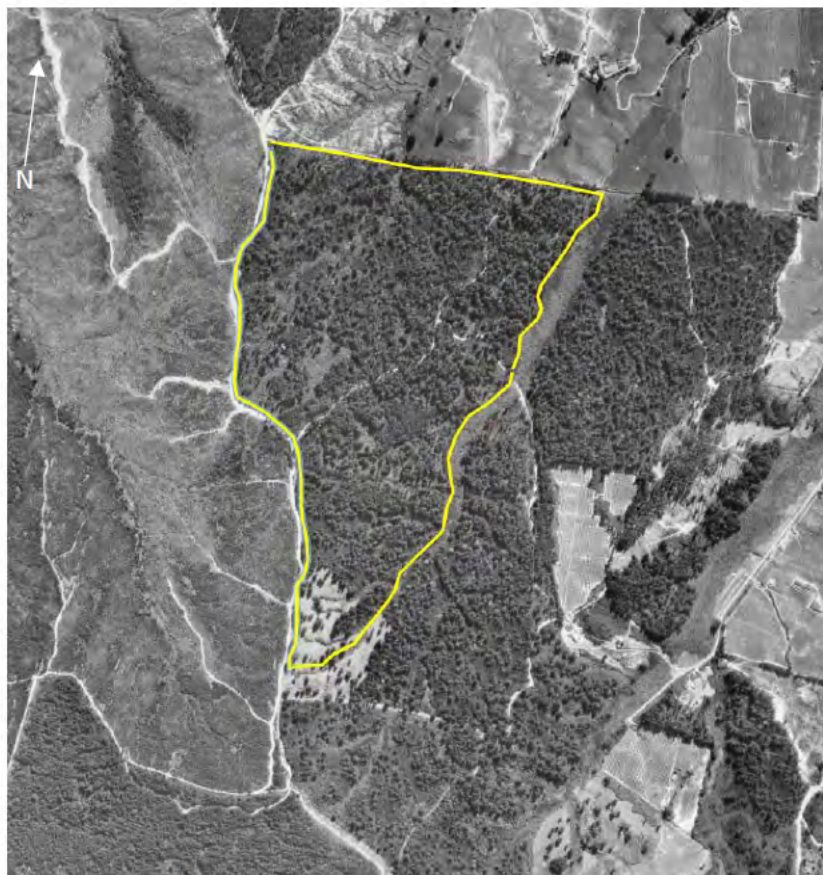


Photo 13: 1969 (Retrolens)

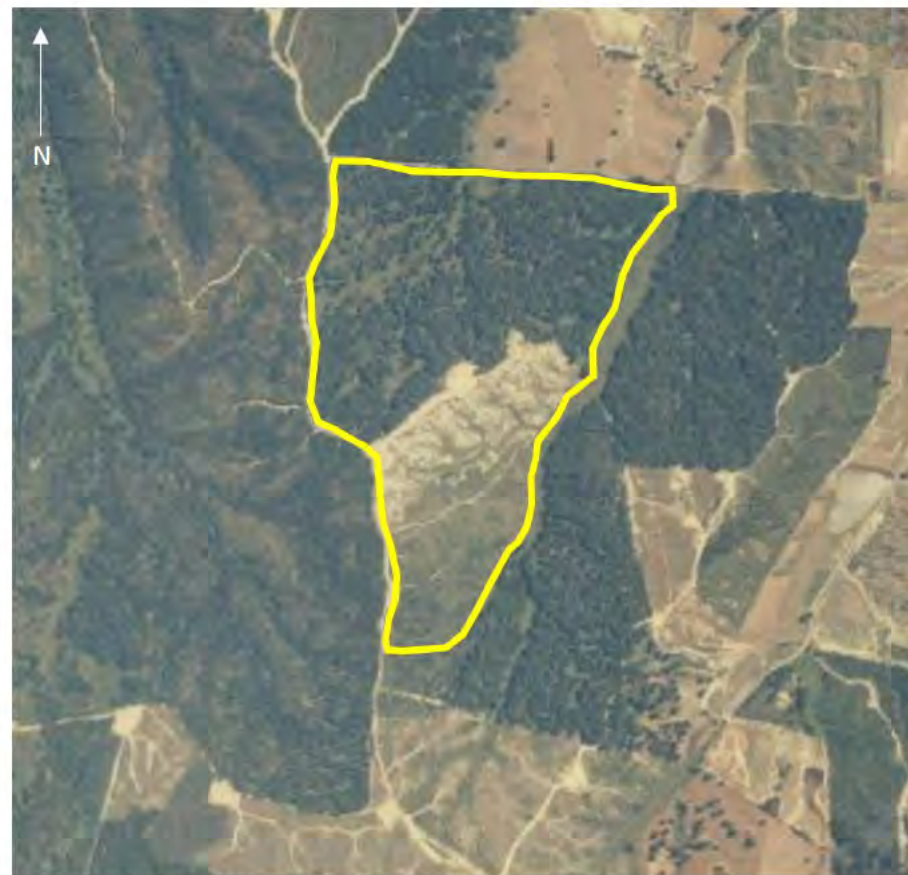


Photo 14: 1981 (Retrolens)

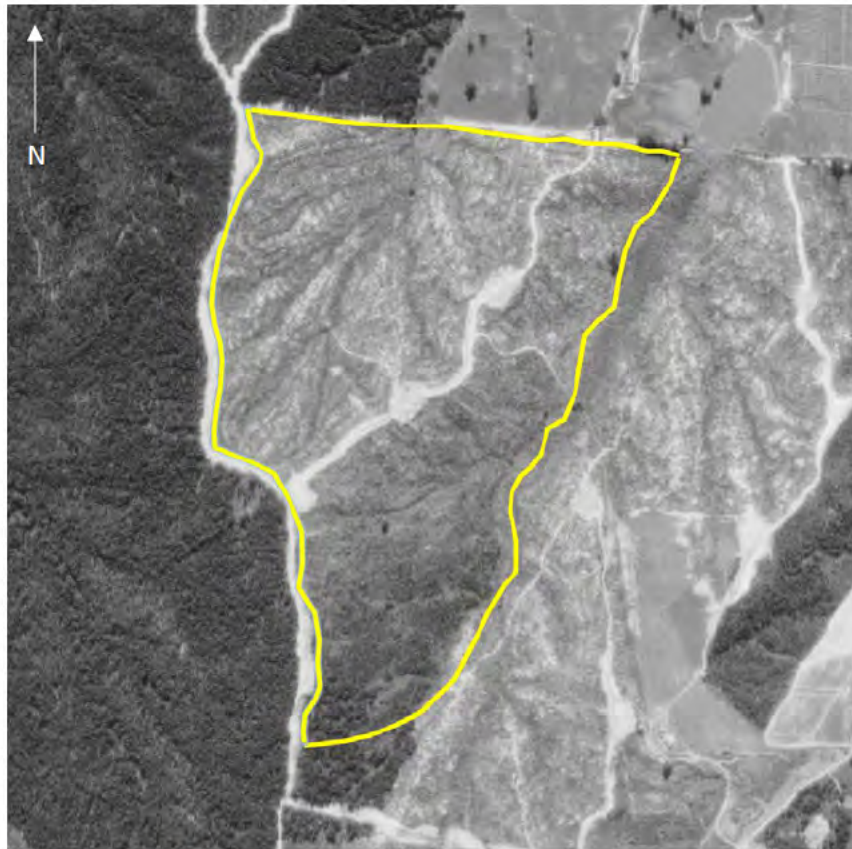


Photo 15: 1985 (Retrolens)



Photo 16: 2000 (Retrolens)



Photo 17: 2003 (Google Earth)



Photo 18: 2011 (Google Earth)



Photo 19: 2018 (Google Earth) sheepyards present

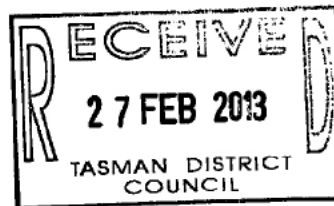
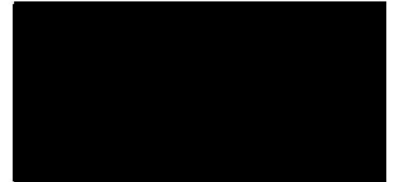


Photo 20: 2021 (Google Earth)

**Appendix D – Letter from NZTA to TDC Waste Spoil Dump Sites: Ruby Bay
Bypass: Disposal of Land (February 2013).**

26 February 2013

Our Reference: WEL010-52-80337



Dear Paul

WASTE SPOIL DUMP SITES : RUBY BAY BYPASS : DISPOSAL OF LAND

Further to our recent telephone conversations, we confirm that we act as agents for NZ Transport Agency ("NZTA") in disposing of land that is surplus to the Ruby Bay Bypass project. As mentioned to you, several of these surplus parcels have had fill and spoil dumped on them during the course of the construction. We consider it desirable that future purchasers of these areas are made aware of the existence of these sites, however because many of these will have new title references, the up to date land information may not show up on Council records.

Some of the sites (those containing marine sediment) are covered by resource consents, however the balance sites have not been subject to any consent process and thus no official Council records will exist. We think it appropriate that Council should have some record of these sites so that a process can be put in place to notify purchasers of the location of the sites and to provide them with as much information as possible on the nature of the fill. NZTA will be responsible for disclosing the information to the initial purchaser however it has no ability to ensure that the information is passed on to subsequent purchasers.

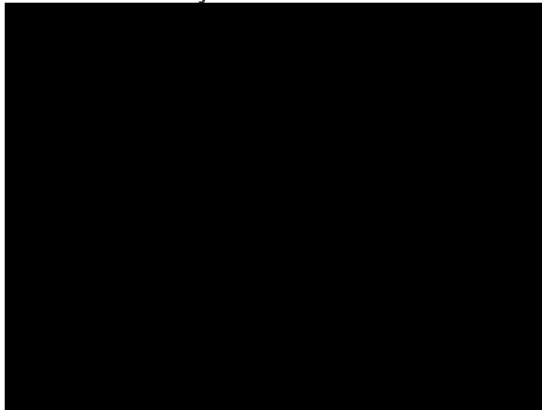
Attached are aerial photos showing the physical location of the sites with commentary on the approximate depth and (where known) the nature of the fill. The areas shaded red have been located from site survey data provided by the contractor (Downers). The yellow shaded areas have been indicated by the Opus Site Representative and others but the location, extent and details of these particular sites are only a general indication. Opus staff have indicated that there is no formal record of what material specifically went into each waste spoil site apart from noting which ones contain the marine sediment.

Generally, the bulk of the material waste spoil is in the form of topsoil and Moutere gravels. In the area of old forestry there was also a lot of tree slash, being tree stumps and tree waste from the logging operations. Towards each end of the Bypass there is likely to be old chip seal (bitumen) removed from existing roads but this will be mixed up with other waste spoil and just buried. It is not known at which sites the bitumen is likely to occur. In summary, the waste

spoil sites may contain topsoil, natural ground (generally Moutere Gravel) and related material, vegetation and forest waste and old road pavement including bitumen seal coat.

Unfortunately there is no further detail we can provide on the fill, however should you wish to discuss matters relating to how this information can be provided to the public, please call to discuss at any time. Opus is able to provide PDF files for each drawing if you require it. Could you please let us know, what type of process, register or system the Council will be using to disseminate the information.

Yours sincerely



0 10 20 30 40 50 60 70 80 90 100 nm





SH 60 REGION 10 RS 0
TE MAMAKU DRIVE
RP 0/12.650 - 15/8.848

AERIAL PHOTOS
SECTION 5

5G230A.06 1:2000(A10) 1:4000(A3)

300 m
200
100
50
0 10 m





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+64 3 5481089

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AERIAL PHOTOS
SECTION 7

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Appendix E – Hill Laboratories Certificate of Analysis



Certificate of Analysis

Page 1 of 2

Client:	Envirolink Limited	Lab No:	3099920	SPv1
Contact:	Marty O'Cain	Date Received:	20-Oct-2022	
		Date Reported:	26-Oct-2022	
		Quote No:	120537	
		Order No:		
		Client Reference:	000087 – Tasman Hills (Tahimana)	
		Submitted By:	Marty O'Cain	

Sample Type: Soil

Sample Name:	TH1 19-Oct-2022	TH2 19-Oct-2022	TH3 19-Oct-2022	TH4 19-Oct-2022	TH5 19-Oct-2022
Lab Number:	3099920.1	3099920.2	3099920.3	3099920.4	3099920.5
Total Recoverable Arsenic mg/kg dry wt	< 2	< 2	< 2	< 2	< 2
Total Recoverable Copper mg/kg dry wt	3	3	3	< 2	3
Total Recoverable Lead mg/kg dry wt	4.3	3.8	3.4	2.6	4.5

Sample Name:	TH6 19-Oct-2022	TH7 19-Oct-2022	TH8 19-Oct-2022
Lab Number:	3099920.6	3099920.7	3099920.8
Total Recoverable Arsenic mg/kg dry wt	< 2	< 2	< 2
Total Recoverable Copper mg/kg dry wt	< 2	3	2
Total Recoverable Lead mg/kg dry wt	4.7	4.5	3.4

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1-8
Environmental Solids Sample Preparation	Air dried at 35°C and sieved, <2mm fraction. Used for sample preparation May contain a residual moisture content of 2-5%.	-	1-8
Total Recoverable digestion	Nitric / hydrochloric acid digestion. US EPA 200.2.	-	1-8
Total Recoverable Arsenic	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	2 mg/kg dry wt	1-8
Total Recoverable Copper	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	2 mg/kg dry wt	1-8
Total Recoverable Lead	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	0.4 mg/kg dry wt	1-8



This Laboratory is accredited by International Accreditation New Zealand (IANZ), which represents New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA) this accreditation is internationally recognised. The tests reported herein have been performed in accordance with the terms of accreditation, with the exception of tests marked * or any comments and interpretations, which are not accredited.

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

Testing was completed between 25-Oct-2022 and 26-Oct-2022. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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

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Appendix F – Hazardous Substances Accidental Discovery Plan

Hazardous Substances Accidental Discovery Plan

Stagecoach Rd, Ruby Bay

Tahimana Ltd

1. Introduction

This Accidental Discovery Plan outlines the process to be implemented in the event that unexpected and / or unidentified contaminated soils or hazardous materials are discovered during earthworks. The procedures outlined allow personnel working on site to identify potential contaminated / hazardous substances and take appropriate action.

2. Unidentifiable material

Contamination indicators or hazardous materials may include but are not limited to the following:

- Intact or damaged drums and containers;
- Unusual odours;
- Ash;
- Discoloured (stained) soils and / or groundwater;
- Petroleum hydrocarbon contaminated soil and / or free product (visual or odorous);
- Coal tar products. Surface or buried pavement products often associated with petroleum hydrocarbon odours;
- General refuse, including any material that normally would be sent to a licensed landfill;
- Bonded cement materials (asbestos).

Please note that items or material such as concrete, brick, iron, plastic, rope, wire etc, while not necessarily sources of contamination, are indicators that the material being excavated is most likely uncontrolled fill and therefore may also contain elevated concentrations of heavy metals or other soil contaminants. Uncontrolled fill requires assessment prior to offsite disposal.

3. Procedures

In the event that items in Section 2 are encountered, the following actions should be undertaken immediately:

- Stop all earthworks where the suspect material, emission and / or discharge has been identified;
- If by discovery there is perceived to be an immediate risk to the workers in the vicinity, then the area shall be evacuated immediately;
- If contact with the suspect material has occurred, by either dermal contact or inhalation, then medical attention should be sought;
- Notify the site supervisor;

- Cordon off the area with a suitable barrier;
- Work shall not resume or commence unless authorised.

The contractor's environmental consultant (SQEP) and Tasman District Council's contaminated sites/ hazardous substances representative are to be contacted.

Once the site is deemed safe to approach and inspect, the contamination shall be characterized by collecting samples for chemical analysis. When the material characteristics have been established, advise the site supervisor as to whether the materials may remain on site or whether materials should be directly loaded into trucks for disposal at an appropriate licensed landfill.

Please note that if the material being excavated is considered to be 'uncontrolled fill' and is not odorous, stained, contain drums or noticeable quantities of refuse, then the excavated material only needs to follow the protocols detailed in Section 4 below.

It is also important to differentiate between 'uncontrolled fill' and 'unsuitable material'. 'Uncontrolled fill' is material that is not native to that location but has been placed there and is not suitable for engineering purposes. 'Unsuitable material' may be natural, in situ material that has been deemed by a qualified geotechnical engineer as not be suitable for engineering purposes and therefore needs to be removed. Such material is not subject to the requirements of Section 4 unless it can be shown to be associated with a hazardous activity or industry.

Any intact drums or tanks that are uncovered shall be dealt with in a similar manner as described above. There should be no attempt made to remove the containers. The container(s) will not be removed until it is certain that it is empty or the contents have been identified and deemed safe for removal by a suitably qualified person.

4. Managing Excavated Material

Uncontrolled fill material that is excavated for the purpose of installing or accessing existing services will be placed on top of a sealed area, plastic sheeting or directly on to a truck. The excavated material will be assessed for its suitability to be reinstated back into the pit or trench by a suitably qualified engineer.

If it is not suitable to be reused due to engineering reasons then it will be analytically tested to confirm that it is suitable for disposal at a facility authorized to receive it. The analytical results will be provided to the landfill operators when applying for a special waste manifest. Alternatively, the analytical testing may confirm that it is suitable for disposal as general 'cleanfill'.

If material excavated from the uncontrolled fill area is to be stockpiled on site for longer than 48 hours then it will be managed in a way that will prevent migration of sediment during strong winds or rain events.

All trucks transporting material excavated from the landfill area will be covered while in transit.

Please note that the analytical testing of material can take up to 7 working days before the results are available from the lab. This time delay needs to be taken into considerations when managing the material.

5. Landfill Gas Assessment

If the material discovered is clearly made up of putrescible and decomposing refuse, then landfill gas (LFG) may be present. A specialist consultant should be contacted on discovery. If considered necessary LFG will be monitored during excavations that penetrate into the landfill / refuse. A MultiRae Plus Multiple Gas Monitor or a similar instrument will be used to monitor lower explosive levels (LEL) and upper explosive levels (UEL). If volatile gases are detected within LEL and UEL concentrations, then work shall cease and the appropriate specialists and authorities notified. A specific work procedure will be prepared for any ongoing work.

Entering pits and confined spaces should also be addressed in the appointed contractors Health and Safety Plan.

6. Asbestos

Often it is unclear if asbestos containing material has been present or disposed of on a site, particularly if buildings have already been removed. If, during excavations, sheets or fragments of bonded cement cladding, roofing or pipes are unearthed, under the Health and Safety at Work (Asbestos) Regulations 2016, further investigation is required.

If bonded cement material is discovered, then work shall cease and a suitably qualified practitioner contacted. The material will be tested at a laboratory to confirm the absence or presence of asbestos.

7. Health and Safety Guidance

All contractors and/or outside organisations working on the site will be expected to provide on request, a health and safety plan prepared specifically for the type of work and associated machinery they will be involved with.

To help prevent site workers from being unnecessarily exposed to potential hazardous substances at the site, there are a few simple protocols that they can follow. These shall be included in the contractor's health and safety plan:

- No food to be consumed within 20 m of areas under excavation
- There shall be no smoking within 20 m of areas under excavation

- All visitors must report to the site manager and are to be made aware of the on-site hazards associated with this site
- Personal protective equipment (PPE) will include hard hat, safety boots, long sleeve cotton overalls, high visibility vest, and gloves. These items shall be worn at all times by staff working on the excavations but are not within an enclosed operating area (excavator or truck cab) until the affected areas are excavated and the site shown to be 'clean' by analytical soil sample results;
- Good quality disposable dust masks must be available to all staff during earthworks operations¹. All staff will be required to wear dust masks if wind conditions are causing dust to become visually air borne. Dampening down the material may be used to prevent dust becoming excessively airborne;
- Site workers should ensure that they wash their hands thoroughly after working with the material and prior to eating, smoking or touching their face;
- All heavy machinery working in areas where the landfill is exposed will be fitted with spark arrestors;
- Signs will be erected at all entrances to the site clearly stating that it is a potentially hazardous site and public access is prohibited. The sign will include the appropriate contact numbers for site management;
- Staff must not enter open pits greater than 1 m deep during any excavation process or when collecting validation samples unless the pit walls have been stabilised by benching or shoring. Samples are to be collected by using the excavator;
- In all emergency situations the first concern must be to save life and prevent injury.

¹ Further detailed information is available on this subject in the NZS/AS 1715:2009; *Selection, use and maintenance of respiratory protection devices*.

Appendix G – Certified Environmental Practitioner Certificate



*The CEnvP Scheme Certification Board
hereby attests that*

Martyn O'Cain

*having fulfilled all the requirements of the Board
has been certified as a*

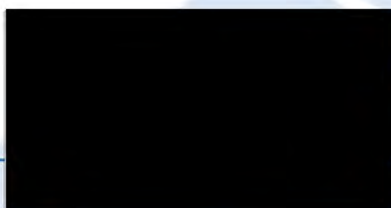
Certified Environmental Practitioner

with Registration Number

816

on the date

12-May-2016



30/06/2026

Certification Expiry Date

