Auckland Council

Ngā Wairau – Stage 1 A F Thomas Park - Contaminated Land

Preliminary Site Investigation

3-AWWAI.02

Ngā Wairau – Stage 1 A F Thomas Park works - Contaminated Land

Preliminary Site Investigation

Auckland Council

WSP
Auckland
Lvl 3, The Westhaven
100 Beaumont St
Auckland 1010, New Zealand
+64 9 355 9500
wsp.com/nz

REV	DATE	DETAILS
A	3/10/2025	Draft for Client Review

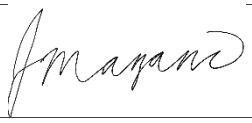
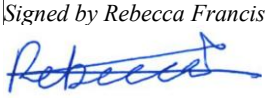
	NAME	DATE	SIGNATURE
Prepared by:	John Manzano	13/11/2025	
Reviewed by:	Megan Baddiley	14/11/2025	
Approved by:	Carole Smith	14/11/2025	*Signed by Rebecca Francis in Carole's absence* 

TABLE OF CONTENTS

APPENDICES

EXECUTIVE SUMMARY

WSP is supporting Auckland Council (AC) Healthy Waters and Flood Resilience Department (Healthy Waters) is lodging a referral application to increase flood storage at A F Thomas Park, Wairau Valley under the Fast-track Approvals Act 2024. The project broadly involves:

a) Flood resilience infrastructure works; and

b) Reserve reinstatement, including site stabilisation, landscaping, new footpaths/boardwalks, and formal and informal recreation.

WSP has been engaged by AC to undertake a Preliminary Site Investigation (PSI) in accordance with the *Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011* (NESCS) for the proposed works at A F Thomas Park (the site).

WSP undertook the PSI to assess whether it is more likely than not that an activity or industry described in the Ministry for the Environment (MfE) *Hazardous Activities and Industries List* (HAIL) (MfE, 2011) is being or has been undertaken on site and assess the potential risks from these activities to workers with regard to soil disturbance and determine further assessment requirements for a contaminated land site investigation.

The scope of works for the PSI comprised:

- A desktop review of the site, including:
  - Historical aerial photographs available on Retrolens, AC Geomaps and Nearmap;
  - The AC Site Contamination Enquiry Report (SCER);
  - AC resource consents;
  - Publicly available geological, hydrological and hydrogeological data; and
  - Previous environmental reports available for the site.
- Preparation of a PSI report outlining the investigation undertaken, its findings, and recommendations for further investigation, if required.

The majority of the site has been a golf course since at least the late 1950s and, aside from a sewer main and some possible stormwater channels installed in the late 1950s to 70s, has undergone little change through to the present day. Several buildings, currently an archery club, a bowling club and an events centre, were also added in the northwest of the site between 1980 and 2012.

Through the review of desktop information, one current HAIL activity (A10) - Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds was identified, and soil contamination risk has been assessed as moderate. Therefore, the NESCS may apply to the site. The works are also likely to involve the movement of more than 200m^3 of soil which may trigger the AUP requirements in the event that permitted activity trigger levels set out in the Auckland Unitary Plan are exceeded. Therefore, soil sampling is required prior to soil disturbance to confirm the extent of any soil contamination risks, whether the requirement for a consent is triggered.

The following are recommended:

- Complete a detailed site investigation (DSI) which will include soil sampling for the following potential contaminants of concern: heavy metals, acidic herbicides, organo nitrate organo-phosphate pesticides (ONPPs) and organochlorine pesticides (OCPs) in the areas of proposed disturbance. Where contaminants above permitted activity criteria are identified, leachability testing should also be completed to understand the leachability of these contaminants and acceptance at landfill sites. Sampling for acid sulphate soils should also be considered where infrastructure is to be built. Results of the DSI will also be used to confirm consent triggers and requirements for contaminated site management plans during works.
- Complete a Contaminated Site Management Plan to manage any identified contaminated soil on the site before the start of works.

— Follow the soil management controls outlined in Section 5 of the PSI to minimise offsite soil disposal and maximise onsite reuse of soil.

1 INTRODUCTION

Auckland Council Healthy Waters and Flood Resilience is lodging a referral application to increase flood storage at A F Thomas Park, Wairau Valley under the Fast-track Approvals Act 2024. This memorandum provides a high-level Preliminary Site Investigation (PSI) for the proposed development.

1.1 PROJECT BACKGROUND

The Ngā Wairau project is part of the Blue-green Network programme and is focused on the key areas within the Wairau catchment that were impacted by the 2023 storm events. Given the large scale of the Wairau catchment, the Ngā Wairau project is to be delivered across three stages.
Increasing the existing flood storage at A F Thomas Park, together with reserve reinstatement, forms Stage 1. Future stages do not currently have funding and are not part of this proposal.

The works proposed under Stage 1 enable the delivery of flood resilience in the catchment by increasing flood storage within A F Thomas Park, initially for the downstream residential area and undertaking additional stormwater improvement works.

The proposed works to increase flood storage at A F Thomas Park include the following:

- Excavate the park to increase the existing flood storage to reduce flood flows and flood levels. Formalisation of a wetland on the northern end of the park where water naturally ponds as a result of the works and dry detention in other areas of the park. At this stage, the earthworks on the site are indicatively estimated to be in the order of 700,000m^3 – 800,000m^3 (cut and fill) to achieve a flood storage volume of approximately 550,000m^3. All excavated material is to remain onsite unless unsuitable.
- The proposed flood storage changes will amend the consented dam. At this stage, the proposed changes may include reducing the dam height, increasing the flood storage capacity and providing an additional spillway.
- Construct a new spillway channel linking the existing channel north of A F Thomas Park that flows east under State Highway 1 to A F Thomas Park to optimise storage and release of flood flows in the park to maximise benefits.
- Reshaping ground using cut material to convey flood flows between proposed raise areas.
- Vegetation removal is required to facilitate the works.
- A temporary construction laydown area will be established on-site (location TBC).
- Reinstatement of A F Thomas Park and constructing new multi-use accessways.

The technical parameters provided above are indicative, as design is ongoing. The referral is sought on the basis of the broader project description provided above (i.e. (a) flood resilience infrastructure works and (b) reserve reinstatement, including site stabilisation, landscaping, new footpaths/boardwalks, and formal and informal recreation), with final design specifications and precise quantities to follow in the substantive application.

WSP is supporting AC with a concept design for the Ngā Wairau – Stage 1 A F Thomas Park works to address flooding in the Wairau catchment. Potential contaminated land risks have been identified that might impact the design approach, consenting requirements or project cost.

A Preliminary Site Investigation (PSI) in accordance with the *Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011* (NESCS) for the proposed works at the site.

1.2 PURPOSE

WSP undertook the PSI to assess whether it is more likely than not that an activity or industry described in the Ministry for the Environment (MfE) *Hazardous Activities and Industries List* (HAIL) (MfE, 2011) is being or has been undertaken on site and assess the potential risks from these activities to workers with regard to soil disturbance and determine further assessment requirements for a contaminated land site investigation.

1.3 SCOPE OF WORK

The scope of works for the PSI comprised:

- A desktop review of the site, including:
  - Historical aerial photographs available on Retrolens, AC Geomaps and Nearmap;
  - The AC Site Contamination Enquiry Report (SCER);
  - AC resource consents;
  - Publicly available geological, hydrological and hydrogeological data; and
  - Previous environmental reports available for the site.
- Preparation of a PSI report outlining the investigation undertaken, its findings, and recommendations for further investigation, if required.

1.4 CERTIFYING STATEMENT

This investigation meets the requirements of the NESCS as it has been undertaken in accordance with the MfE *Contaminated land management guidelines No. 1: Reporting on contaminated sites in New Zealand* (CLMG No.1) (MfE, 2021) and has been completed by an investigator and certified by a principal who meet the interpretation of a Suitably Qualified and Experienced Practitioner (SQEP). The investigation manager and principal certifier details are provided in Table 1.1 below.

Table 1.1 Investigation management

Item	Details
Investigation Manager	
Name	John Manzano
Job Title	Environmental Scientist
Years' industry experience	5
Certifier	
Name	Carole Smith
Job Title	Technical Director – Environment Certified Environmental Practitioner, Site Contamination Specialist
Years' industry experience	33

2 SITE LOCATION AND SETTING

2.1 SITE LOCATION

The Site is located approximately 11 kilometers north of the Auckland central business district situated in a mixed residential and commercial area. The Site location is shown in Figure 1 with general site details provided in Table 2.1.

Figure 1: Site location

Table 2.1 Site details

Site Address (Legal Description)	— R21 and 21 Northcote Road (Lot 1 DP 150598, Lot 3 DP 150598, Lot 4 DP 150598, Lot 8 DP 150598, Lot 8 DP 101760) — 17 Silverfield Lane (Lot 2 DP 150598) — 17A Silverfield Lane (Lot 5 DP 150598) — 17B Silverfield Lane (Lot 6 DP 150598) — 17C Silverfield Lane (Lot 7 DP 150598); — Nil (PT ALLOT 103 PSH OF TAKAPUNA)
Approximate Site Area	497,250 m^2
Unitary Authority	Auckland Council
Regional Authority	Auckland Council

Surrounding land uses	North: Commercial / Industrial area of Porana Road.
	East: Auckland Northern Motorway (SH1) immediately adjacent to site boundary, with Westlake Girls High school, hockey turf, and commercial buildings beyond. Westlake Boys High School is northeast of the site.
	South: Northcote Road immediately adjacent to site, with North Harbour netball facilities and Smith's Bush wetland area beyond.
	West: Residential housing borders the majority of western perimeter. A shopping centre, including a Mobil petrol station and the Hillcrest Substation, is situated near the southwestern site boundary.
Current site use	Recreation and local purpose reserve with the following existing activities golf course, archery range, bowling green, events centre and stormwater management.
Planned site use	Recreation and local purpose reserve in accordance with the Kāipatiki Local Parks Management Plan including stormwater management.

2.2 GEOLOGY AND HYDROGEOLOGY

The institute of Geological and Nuclear Sciences Geological Map 'New Zealand Geology' webmap at 1:250,000 scale (GNS, 2025a) indicates that the site is underlain by Holocene aged river deposits described as "sand, silt mud and clay with local gravel and peat beds." Nearby the site, approximately 100 metres to the west are Neogene sedimentary rocks described as "alternating sandstone and mudstone with variable volcanic content and interbedded volcaniclastic grits" and "Late Pliocene to Middle Pleistocene pumiceous river deposits".

2.2.1 SURFACE WATER AND HYDROGEOLOGY

The GNS 'National Water Table Interactive Map' layer (GNS, 2025b) indicates groundwater is present at the site at a depth of 0.5m to 2.5 m below ground level (bgl). Groundwater flow is expected to be towards Lake Pupuke approximately 940 metres east of the site. The topography is generally flat, and surface /stormwater is expected to drain to a channel in the centre of the golf course which then discharges to the Wairau Creek in the northeast corner of the site.

3 DESKTOP REVIEW

3.1 HISTORICAL AERIAL PHOTOGRAPH REVIEW

WSP reviewed historical aerial photographs for the site and surrounding area sourced from Retrolens, AC Geomaps and Nearmap, dating between 1957 and 2024. A summary of observed land uses, and land use changes are described in Table 3.1 below.

Table 3.1 Historical aerial review of site.

Year (Source)	Onsite	Offsite
1957 (Retrolens)	A golf course covers much of the site (sand traps visible across the fields). A section in the southeast of the site appears to be open grassed fields, and the northeastern corner of the site is in low shrubs / trees. Residential houses dotted around or just within site perimeter.	The surrounding environment is suburban residential housing and fields. Wairau Road was established north and east of the site. Sheds with stockpiled material are visible on properties adjacent to the north of the site. Possible small orchards on properties adjacent to the north of the site. Large group of buildings to the east of the site (present day Westlake Girls High School).
1959 (Auckland Council Geomaps)	No changes to the golf course. Earthworks, possibly the sewer main being installed, runs down the centre of the site.	Expansion of sheds towards the northern site boundary. Slight expansion of residential housing on western site boundary.
1963 (Retrolens)	No changes to the golf course. The dirt track was removed. Channel features observed (presumed stormwater) in northeast of the site.	Commercial / industrial buildings established near southwestern site boundary. Shed with multiple cars outside visible adjacent to the western site boundary.
1968 (Retrolens)	No changes to the golf course. Earth patch visible northwest of site.	The motorway was established adjacent to the eastern boundary. Expansion of residential housing on western site boundary.
1972 (Retrolens)	No changes to the golf course. Patches of bare ground visible in northwestern corner of site.	Expansion of industrial buildings / large sheds adjacent to the northern site boundary. Shopping complex or similar (range of building sizes and many carparks) established near southwestern site boundary. A shed and open structures present immediately north of site (current substation).

1980 (Retrolens)	No significant changes.	Further expansion of industrial area to the north of site; now extends along entire northern site boundary. Expansion of residential housing on western site boundary. Expansion of structures north of site (present – day substation).
1988 (Retrolens)	No changes to the golf course. Development of several buildings and possible bowling green in the northwest of site.	Expansion of industrial area to north of site, now extends around the north-eastern corner of site.
1996 (Auckland Council Geomaps)	No significant changes	No significant changes
2001 (Auckland Council Geomaps)	No changes to the golf course. Building in north of site expanded.	No significant changes
2006 (Auckland Council Geomaps)	No changes to the golf course. Carparking extends across northern end of site. Electrical transformer hub now clearly visible in northeastern corner of site.	No significant changes.
2010-2011 (Auckland Council Geomaps)	No changes to the golf course. Building and floodlit field established in southeastern corner of site (driving range). Additional building in northwest of site.	No significant changes.
2015-2016 (Auckland Council Geomaps)	No significant changes.	No significant changes.
2020 (Nearmap)	No significant changes.	No significant changes.
2024 (Nearmap)	No changes to the golf course. Yard area with stockpiled material in the north of the site.	No significant changes.

The majority of the site has been a golf course since at least the late 1950s and, aside from a sewer main and some possible stormwater channels installed in the late 1950s to 70s, has undergone little change through to the present day. Several buildings, currently an archery club, a bowling club and an events centre, were also added in the northwest of the site between 1980 and 2012.

Significant changes through time in the surrounding area include the establishment of the Auckland Northern Motorway adjacent to the site in the late 1960s, and the development of an industrial area to the north of the site since the 1960s. Residential housing has also increased greatly along the western boundary of the site. An electrical substation was developed adjacent to the north-eastern corner of the site in the 1970s; electrical substations are listed on the hazardous activities and industries list (HAIL).

Copies of aerial photographs have been included in Appendix A.

3.2 HAIL REGISTER

The list of sites that Auckland Council have identified that have been subject to activities on the HAIL is not publicly available. WSP requested a Site Contamination Enquiry Report (SCER) from AC. The report highlights the site is classified as HAIL Category A.10 -Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds.

The SCER for the site is presented as Appendix B.

3.3 RESOURCE CONSENTS

WSP received four property files from AC for the site:

- 17 Silverfield Wairau Valley 0627
- 17B Silverfield Wairau Valley 0627
- 4A Wairau Road Wairau Valley 0627
- 21 Northcote Road Wairau Valley 0627

The following resource consents were found in the property files and are summarised in Table 3.2 below:

Table 3.2 Resource consents

Address	Consent No.	Consenting Body	Document Date	Consent Type	Summary
17 Silverfield Wairau Valley 0627	LUC/2080231	North Shore City Council	26/06/2007	Land Use Consent	To use land for additions and alterations which involve the provision of toilets separated from the main entrance and to provide a new emergency egress.
	LQ-2129684	North Shore City Council	8/06/2009	Land Use Consent	To use land for earthworks associated with Sewer Upgrade in Hillcrest-C20(Area A)
4A Wairau Road Wairau Valley 0627	LQ-2133098	Auckland Council	1/04/2011	Land Use Consent	To establish, operate and maintain a 220 kv Grid Exit Point at 4A Wairau Road, Wairau Valley.
21 Northcote Road Wairau Valley 0627	LL-2120484	North Shore City Council	25/03/1992	Land Use Consent	To erect a driving bay and associated safety and security fencing.
	LP-0080001	North Shore City Council	29/06/2001	Land Use Consent	To undertake drainage works.
	LW-2124980	North Shore City Council	26/01/2007	Land Use Consent	Construction of a new two level driving range and the construction of protection fencing around the perimeter of the driving range.

3.4 PREVIOUS INVESTIGATIONS

As noted, four property files were recalled from AC for review as part of this assessment including:

- 4A Wairau Road, Wairau Valley
- 17 Silverfield Road, Wairau Valley
- 17B Silverfield Road, Wairau Valley
- 21 Northcote Road, Wairau Valley

No work is occurring within 4A Wairau Road, Wairau Valley and only ordered for completeness.

17A and 17C Silverfield Road, Wairau Valley were also requested, however, these properties did not have separate property files assigned.

Table 3.3 summarises information contained within each property file pertinent to contaminated land.

Address	Document reviewed	Comments
4A Wairau Road, Wairau Valley	Flinders Cook (Technical Services) Ltd; Water sample memo, October 2005	One water sample was collected (14/12/2005) and analysed for hydrocarbon content. Reported to be “6ppm”. No detail further detail provided.
	Geotechnical Investigation Factual Report- Wairau Rd New 22kV GXP Substation; AECOM, May 2011	Fill was identified in boreholes to a depth of 3m bgl.
	Email – From Bala Muru to Kevin Morris dated 6 March 2012	Reference is made to a wastewater holding tank and the requirement for further information.
	Environmental Preliminary Site Investigation – Wairau Road Substation, AECOM, Feb 2011	Shallow soil sampling from 9 locations, collected below chipseal and basecourse and ~0.5m bgl. Analysed for metals, pesticides and total petroleum hydrocarbons. Only metals (arsenic, copper, lead and zinc) returned results above detection limits. All concentrations were reported below environmental and human health guidelines. Risk associated with contact with soil at time of reporting was deemed low.
17 Silverfield Road, Wairau Valley, Auckland	No information pertaining to contaminated land identified.	

17B Silverfield Road, Wairau Valley, Auckland	Geotechnical Review of Proposed Youth Town Centre, 17 Silverfield Road, Wairau Valley BE-1236416, Riley 2009	Geotechnical investigation undertaken by Riley in 2009 identified fill to a maximum depth of 1.5m bgl.
21 Northcote Road, Wairau Valley, Auckland	No information pertaining to contaminated land identified. Some duplication of 17 and 17B Silverfield Road.	

4 CONCEPTUAL SITE MODEL

A conceptual site model (CSM) is used to support the decision-making process for contaminated land management. The potential risk has been assessed qualitatively using the 'source – pathway – receptor pollutant linkage' concept, which states that for a risk to arise each stage of the pollutant linkage must be present. For there to be an effect on receptors there must be a contamination source and a mechanism (pathway) for contamination to affect the receptor, i.e., human health.

Where a possible pollutant linkage has been identified, investigation and risk assessment via a detailed site investigation (DSI) may be necessary to establish whether a significant pollutant linkage exists. Data gaps and uncertainties are identified during the preparation of the CSM, which assists in designing any DSI that may follow.

WSP developed a preliminary CSM based on the findings of the desktop study review on Table 4.1 below. This model assesses risks associated with all relevant human health and environmental receptors.

Table 4.1 Conceptual Site Model

Source	Pathway	Receptors											Comments
		Human Health				Soil ecosystems	Discharge to aquatic ecosystems	Aesthetics	Water based recreation	Irrigation	Stock-watering	Industrial commercial abstraction	
		Visitors and general public	On-site intrusive workers	Off-site intrusive worker	Users of potable water								
	Soil												
Contaminant impacts in soil from historical maintenance of the golf course	Direct contact with impacted soil	○	●	○	-	-	-	-	-	-	-	-	Herbicides, pesticides and fertilisers have been applied to the golf course over the period of its use to manage the tee, greens and fairways Buildings built in the late 1980s when the use of asbestos and lead based paint was declining but still prevalent. There will be no access to the public during soil excavation.
	Dust generated from impacted soils	○	◗	○	-	-	-	-	-	-	-	-	
	Inhalation of vapours from impacted soils	○	◗	○	-	-	-	-	-	-	-	-	
	Leaching of contaminant impacts in soil to surface water	-	-	-	-	◗	◗	○	○	○	○	○	Contaminants may leach into surface water during rain events.
	Leaching from contaminant impacts in soil to groundwater	○	○	○	-	○	◗	○	○	○	○	○	
	Leaching from contaminant impacts in soil to subsurface drainage network	-	-	-	-	-	-	-	-	-	-	-	
	Visual or olfactory sensing	-	-	-	-	-	-	-	-	-	-	-	
	Groundwater												
Contaminant impacts in soil from historical maintenance of the golf course	Direct contact with impacted groundwater	○	◗	○	-	-	-	-	-	-	-	-	Groundwater may be encountered during soil excavation. Contaminant impacted groundwater is not known at this stage.
	Extraction and use of impacted groundwater	-	-	-	-	-	-	-	-	-	-	-	
	Inhalation of vapours from impacted groundwater	○	◗	○	-	-	-	-	-	-	-	-	Contaminant impacted groundwater is not known at this stage.
	Migration and discharge of impacted groundwater to surface water	-	-	-	-	-	○	○	○	○	○	○	Contaminant impacted groundwater is not known at this stage.

●	spr linkage is active	◗	spr linkage is potentially active	○	spr linkage in inactive	-	beneficial use/receptor is not applicable to pathway

5 DISCUSSION

5.1 HIGH RISK AREAS

It is highly likely that herbicides, pesticides and fertilisers have been applied to the golf course over the period of its use to manage the tee, greens and fairways. It is likely there has been more intensive use of pesticides in specific areas of the golf course, such as the area around the golf tees, greens and to a lesser extent the fairways, which would trigger the A10 HAIL Category. These areas form a small proportion of the overall land holding. As the golf course has been in operation for over 70 years it is possible that elevated concentrations of pesticides and herbicides containing organochlorine, organophosphate and organo nitrate compounds and heavy metals such as arsenic, copper, lead and mercury may have accumulated on the site. In addition, some fertilisers contain cadmium which can also accumulate to elevated concentrations as a result of multiple applications over long periods. In order to better understand soil contaminant concentrations which may trigger consent requirements and require more considered management during earthworks to protect workers and the environment we suggest that soil sampling is completed across the golf course site.

Substations are listed under category B4 of the HAIL. Aerial imagery shows the substation to be in good condition, and a review of Google Street View shows the substation is bunded. Any spills from maintenance work and contamination are likely to remain within the bunded areas. However, it is possible that soils in the immediate vicinity of the substation are contaminated with heavy metals, polychlorinated biphenyls (PCBs), hydrocarbons and asbestos. Based on the design plans as of October 2025, soil is unlikely to be disturbed in the vicinity of the substation, however if the soil removal area changes, soil sampling would be recommended to give an understanding of the suitability of the soil for reuse as fill as part of the project, or disposal if the soil is deemed unsuitable.

Whilst not deemed to be HAIL, buildings relating to the bowling club, archery club and the Fairway Events Centre in the northwest of the site appear to have been built in the late 1980s when the use of asbestos (WorkSafe, 2024) and lead based paint (Worksafe, 2013) was declining but still prevalent. Soil is unlikely to be removed from this area, however if the soil removal area changes, soil sampling would be recommended to give an understanding of the suitability of the soil for reuse as fill as part of the project, or disposal if the soil is deemed unsuitable.

5.2 APPLICATION OF LEGISLATION

5.2.1 APPLICATION OF THE NESCS

AC have identified the Site as HAIL, specifically Category A10 – Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds. No further HAIL activities were identified during review.

Table 5.1 outlines probability of contamination based on information reviewed in this document pursuant to NESCS regulation 6(3).

Table 5.1 Probability of contamination as per NESCS Regulation 6

Condition (as set out in regulations)	Supporting information
(a) An activity or industry described in the HAIL is, or is not, being undertaken on the piece of land	Auckland Council have identified the site as HAIL Category A10 (persistent pesticide use) Some localised contamination may exist around areas such as golf tees and greens where pesticide and fertilisers usage may have been more intensive.
(b) An activity or industry described in the HAIL has, or has not, been undertaken on the piece of land	See above
(c) The likelihood of an activity or industry described in the HAIL being undertaken, or having been undertaken, on the piece of land	See above
The likelihood that the soil is contaminated as a result of activity or industry occurring.	Whilst a high likelihood of contamination around areas where pesticides and herbicides have been applied is expected, there are likely to be large areas of the site where contamination is considered to be lower risk for example between fairways. Therefore, the likelihood that soil on site has been contaminated as a result of site use is deemed **MODERATE**. WSP is also aware that a Vector substation lies adjacent to the site boundary. Although substations are classed under HAIL category B4, the construction of this site suggests a low likelihood for migration of contaminants onto the subject site, Therefore the risk from this facility is low.

Due to the presence of an activity on the HAIL, a **NESCS consent may be required** for soil disturbance as it is unlikely that the soil volumes to be disturbed are below those allowed for a permitted activity.

5.2.2 APPLICATION OF THE AUP-SECTION E30

The works are likely to involve the movement of more than 200m^3 of soil **which may trigger the AUP requirements** in the event that permitted activity trigger levels set out in the unitary plan are exceeded.

Soil sampling should be undertaken across the area of disturbance prior to any works to inform consenting requirements under the AUP. If concentrations of contaminants are below thresholds, then works would be permitted, assuming other controlled activity criteria can be met.

5.3 DESIGN CONSTRAINTS

5.3.1 SOIL MANAGEMENT

We understand that the project will seek to maximise reuse of soil within the project area to minimise offsite disposal costs. The following hierarchy of controls will be implemented to reduce the need for offsite soil disposal and by implementing this approach, we anticipate that offsite disposal needs will be minimised:

1. Soil meeting background soil concentrations – no additional contamination related controls required.
2. Soil exceeding background but below site acceptance criteria based on landuse – controlled activity consent under the NESCS required.
3. Soil exceeding site acceptance criteria - additional controls will be required to minimise environmental exposure. These may include placing more contaminated soils at depth or undertaking remedial treatment ahead placement. Consent approvals under the NESCS and potentially the AUP along with an associated assessment of the environmental effects will be required to authorise the remedial approach.
4. Soil exceeding site acceptance criteria which cannot be safety reused on site – disposal off site.

5.3.2 ACID SULPHATE SOILS

Whilst not strictly a contaminated land issue, WSP have reviewed Figure 2 of the Preliminary Assessment of the Acid Sulphate Soils Hazard in the Auckland Region (Roberts & McConchie, 2017). The figure denotes the probability of occurrence of acid sulphate soils.

The site sits within an area of medium probability for the occurrence of acid sulphate soils and is adjacent to an area of low probability. The presence of acid sulphate soils is relevant to the design of any structures to be placed within the ground, and we recommend that further testing be undertaken to inform specifications for concrete pipework and culverts and to minimise the risk of the generation of acidic conditions during and post earthworks.

5.4 FURTHER ASSESSMENT

5.4.1 SITE INVESTIGATIONS

Following this preliminary review and upon completion of the conceptual design for the works, an intrusive investigation (Detailed Site Investigation) is recommended to collect representative soil samples to establish the suitability of material for reuse or disposal. This can be undertaken either prior to earthworks commencing or at the same time as the earthworks.

The potential contaminants of concern for the area would include:

- Heavy Metals (M8 Suite)
- Acidic herbicides
- ONPPs
- OCPs.

Leachability testing should be completed to understand the leachability of any contaminants that trigger permitted activity criteria. Sampling for Acid Sulphate Soils could also be considered where concrete infrastructure is to be built.

Results of soil investigations will be used to confirm consent triggers and requirements for contaminated site management plans during works.

5.4.2 CONTAMINATED SITE MANAGEMENT PLAN

A likely requirement of any future NESCS consent will be a Contaminated Site Management Plan (CSMP) to manage any identified contaminated soil on this site. This plan would outline areas in which contamination has been confirmed or anticipated and how any contractor should proceed to control and manage soil contamination risks. The CSMP would include an Unexpected Discovery Protocol outlining what to do in the event of unexpected contamination being identified during works. This can be prepared once agreement is reached on the consent approach.

6 CONCLUSION & RECOMMENDATIONS

6.1 CONCLUSIONS

Through the review of desktop information, one current HAIL activity (A10) was identified and risk as a result of soil contamination has been assessed as moderate. Therefore, the NESCS does apply to the site and an NESCS consent may be needed to authorise soil disturbance.

The works are also likely to involve the movement of more than 200m^3 of soil which may trigger the AUP requirements in the event that permitted activity trigger levels set out in the unitary plan are exceeded. Therefore, soil sampling prior to soil disturbance will be required.

6.2 RECOMMENDATIONS

The following are recommended:

- Complete a detailed site investigation (DSI) which will include soil sampling for the following potential contaminants of concern: heavy metals, acidic herbicides, OPPs and OCPs. Leachability testing should be completed to understand the leachability of these contaminants. Sampling for acid sulphate soils should also be considered where infrastructure is to be built. Results of the DSI will also be used to confirm consent triggers and requirements for contaminated site management plans during works.
- Complete a CSMP to manage any identified contaminated soil on the site before the start of works.
- Follow the soil management controls outlined in the CSMP to minimise offsite soil disposal and maximise onsite reuse of soil.

7 USE & RELIANCE

1. This report ('Report') has been prepared by WSP New Zealand Limited ('WSP') for Auckland Council ('Client') in relation to the Fast-track Referral Application Ngaa Wairau - Stage 1 A F Thomas Park Works and in accordance with the terms of the agreement between WSP and Client. The Report relates to the project and scope set out in the Report and the stated purpose for which it was prepared. Subject to clause 2 below, the Report is not to be used or relied on for any other project or purpose, or by any person other than our client, without WSP's prior written agreement. WSP does not accept liability for any unauthorised use or reliance.

2. WSP acknowledge and agree that this Report may be used and relied on by the Minister deciding on the Fast-track Referral Application under section 21 of the Fast-track Approvals Act 2024, and by any expert consenting panel appointed under that Act to determine a subsequent substantive application.

3. In preparing this Report, WSP has relied upon data, surveys, analyses, designs, plans and other information ('Client Data') provided by or on behalf of the Client. Except as otherwise stated in this Report, WSP has not verified the accuracy or completeness of the Client Data. To the extent that the statements, opinions, facts, information, conclusions and/or rec1ommendations in this Report are based in whole or part on the Client Data, those conclusions are contingent upon the accuracy and completeness of the Client Data. WSP will not be liable for any incorrect conclusions or findings in the Report should any Client Data be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to WSP.

References

GNS. (2025a, 09 5). Retrieved from https://data.gns.cri.nz/

GNS. (2025b, 6 26). *National Water Table Interactive Map*. Retrieved from https://rogierwesterhoff.users.earthengine.app/view/nzwatertable

MfE. (2011). *Hazardous Activities and Industries List (HAIL): October 2011.*

MfE. (2021). *Contaminated Land Management Guidelines No.1: Reporting on Contaminated Sites in New Zealand (CLMG No.1).* Ministry for the Environment.

Roberts, R. C., & McConchie, J. (2017). *Preliminary assessment of the acid sulphate soils hazard in the Auckland Region.*

Worksafe. (2013). *Guidelines for the Management of Lead-Based Paint.*

WorkSafe. (2024). *Asbestos in Aotearoa New Zealand.*

APPENDIX A

HISTORICAL AERIALS

Legend

Site Boundary

O IOOm 200m

c OpenSIIOOlMOp COntrlbulOr8

wsp

Produced by **Datonosl.oorth**

Tiue, 1957 Aerial Photo		
Client Auckland Council		Slie: A4
Project: Ngo Walrau-Stcge I A F Thomes Pork Works	Drawn: JM	Figure, A-01
Dole: 07-10-2025	Checked: MB	
Proj No: 3-AWWAI.02	Scale: I:6000	version: Final

legend

0 Site Boundary

O IOOm 200 m

LINZ CC **BV 4.0** □ Imagery Bosemop comrlbl.ltors, G9oMops Aucklond □egloncl Council

Produced by **Datonasl.oorth**

Tiua,
1959 Aerial Photo

Client Auckland Council		Slie: A4
Project NgOWalrau-Stage I A F Thomas Pork Works	Drawn: JM	Figure, A-02
Dote: 07-10-2025	Checked: MB	
Proj No: 3-AWWAI.02	Scale: I:6000	version: Final

legend

D Site Boundary

0 IOOm 200m

C OpenSIIOOlM0p COntrlbul0r8

wsp

Produced by **Datonasl.oorth**

Tiua, 1963 Aerial PhOIO		
Client Auckland Council		Slie: *A4*
Project Ngo Walrau- Stcge I A F Thomas Park Works	Drawn: JM	Figure, A-03
Dole: 07-10-2025	Checked: MB	
Proj No: 3-AWWAI.02	Scale: I:6000	version: Final

Legend

O Site Boundary

O IOOm 200m

LINZ CC BY 4.0 C 1mogory eosemop contributors

Producod by **Datonosl.oorth**

Iltu>, 1968 Aerlol Photo		
Clfent Auckland Council		Size: A4
Projeet: Ngo Wolrou-Stoge I A F Thomas Pork Works	Drawn; JM	Figure: A-04
Dote: 07-10-2025	Checked: MB	
Proj No: 3-AWWAI.02	Scale: 1:6000	version: Final

Legend

D Site Boundary

O IOOm 200m

c Opens11001t,top contributors

PrOduced by **Datonosl.oorth**

Tituo, 1972 Aerial Photo		
Clfent Auckland Council		Size: A4
Project Ngo Walrou-Stoge I A F Thomas Pork Works	Drawn; JM	Figure: A-05
Date: 07-10-2025	Checked: MB	
Proj No; 3-AWWAI.02	Scale: 1:6000	version; Final

Legend

0 Site Boundary

O IOOm 200m

© Opens11001t,top contributors

PrOducod by **Datonosl.oorth**

Titu3' 1980 Aerial Photo		
Clfent Auckland Council		Size: A4
Project Ngo Wolrou-Stoge I A F Thomas Pork Works	Drawn; JM	Figure: A-06
Dote: 07-10-2025	Checked: MB	
Proj No: 3-AWWAI.02	Scale: I:6000	version: Final

Legend

D Site Boundary

O IOOm 200m

c Opons11001t,top contributors

PrOducod by **Datonosl.oorth**

nm-, 1988 Aerlol Photo		
Clfent Auckland Council		Size: A4
Project Ngo Walrou- Stcge I A F Thomas Pork Works	Drawn; JM	Figure: A-07
Dote: 07-10-2025	Checked: MB	
Proj No; 3-AWWAI.02	Scale: I:6000	version; Final

Legend

D Site Boundary

O IOOm 200 m

LINZ CC BV 4.0 □ Imagery Bosemop comrlbutors, G90Mops Aueklond □eglonol council

Produced by **Datonosl.oorth**

Tlie, 1996 Aerlol Photo		
Clfent Auckland Council		
Project: Ngo Wolrou-Stoge I A F Thomas Pork Works	Drown; JM	Figure: A-08
Dote: 07-10-2025	Checked: MB	
Proj No: 3-AWWAt02	Scale: 1:6000	version: Final

Legend

Site Boundary

O IOOm 200 m

© Opensu ....tMop contributors. GeoMops Aucklond Reglonol council

PrOduced by **Datonosl.oorth**

Title: 2001 Aerial Photo		
Clfent Auckland Council		Size: A4
Project: Ngā Wairau – Stage 1 A F Thomas Park Works	Drown; JM	Figure: A-09
Date: 07-10-2025	Checked: MB	
Proj No: 3-AWWAI.02	Scale: 1:6000	version: Final

Legend

D Site Boundary

O IOOm 200 m

LINZ CC *BV* 4.0 □ Imagery Bosemop comrlbl.ltors, G90Maps Aueklond □eglonal Council

"'|>

PrOducod by **Datonosl.oorth**

nm-,
2006 Aerial Photo

Clfent Auckland Council		Size: A4
Project Ngo Walrou-Stcge I A F Thomas Pork Works	Drown; JM	Figure: A· 10
Dote: 07-10-2025	Checked: MB	
Proj No: 3-AWWAI.02	Scale: I:6000	version: Final

Legend

Site Boundary

O IOOm 200 m

© Opensu ....tMop contributors. GeoMops Aucklond Reglonol council

PrOducod by **Datonosl.oorth**

Title: 2012 Aerial Photo		
Clfent Auckland Council		Size: A4
Project: Ngā Wairau – Stage 1 A F Thomas Park Works	Drown; JM	Figure: A-11
Date: 07-10-2025	Checked: MB	
Proj No: 3-AWWAI.02	Scale: 1:6000	version: Final

Legend

Site Boundary

O IOOm 200 m

© Opensu.... 1Mop contributors. GeoMops Aucklond Reglonol council

PrOducod by **Datonosl.oorth**

Title: 2015/16 Aerial Photo		
Clfent Auckland Council		Size: A4
Project: Ngā Wairau – Stage 1 A F Thomas Park Works	Drown; JM	Figure: A-12
Date: 07-10-2025	Checked: MB	
Proj No: 3-AWWAI.02	Scale: 1:6000	version: Final

Legend

Site Boundary

O IOOm 200 m

© Opensu ....tMop contributo,s. GeoMops Auckland Reglonol council

Producod by **Datonosl.oorth**

Title: 2020 Aerial Photo		
Clfent Auckland Council		Size: A4
Project: Ngā Wairau – Stage 1 A F Thomas Park Works	Drown; JM	Figure: A· 13
Date: 07-10-2025		
Proj No: 3-AWWAI.02	Checked: MB	

Scale: 1:6000 Version: Final

Legend

Site Boundary

O IOOm 200m

cNoormop

Produced by **Datonosl.oorth**

nm-,
2024 Aerial Photo

Client Auckland Council		Size: A4
Project Ngo Walrau- Stage I A F Thomas Pork Works	Drawn; JM	Figure: A-14
Dote: 07-10-2025	Checked: MB	
Proj *No;* 3-AWWAI.02	Scale: 1:6000	version; Final

APPENDIX B

SCER ENQUIRY

12/02/2025

WSP New Zealand Limited
PO Box 1482
Christchurch

Attention: Henry McIntyre

Dear Henry Mcintyre

Site Contamination Enquiry – *21 Northcote Road, Wairau Valley*

This letter is in response to your enquiry requesting available site contamination information within Auckland Council records for the above site. Please note this report does not constitute a site investigation report; such reports are required to be prepared by a (third-party) Suitably Qualified and Experienced Practitioner.

The following details are based on information available to the Contamination, Air & Noise Team in the Resource Consent Department. The details provided may be from former regional council information, as well as property information held by the former district/city councils. For completeness the relevant property file should also be requested to obtain all historical records and reports via 09 3010101 or online at:

https://www.aucklandcouncil.govt.nz/buying-property/order-property-report/Pages/order-property-file.aspx.

1. Hazardous Activities and Industries List (HAIL) Information

This list published by the Ministry for the Environment (MfE) comprises activities and industries that are considered likely to cause land contamination as a result of hazardous substance use, storage, and/or disposal.

Council's records indicate this site has possibly been subject to the following activity that falls within the HAIL:

- HAIL Item (A.10) – Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds

Council records indicate the site has been utilised as a golf course since at least 1961.

Please note:

- *If you are demolishing any building that may have asbestos containing materials (ACM) in it, you have obligations under the Health and Safety at Work (Asbestos) Regulations 2016 for the management and removal of asbestos, including the need to engage a Competent Asbestos Surveyor to confirm the presence or absence of any ACM.*
- *Paints used on external parts of properties up until the mid-1970's routinely contained lead, a poison and a persistent environmental pollutant. You are advised to ensure that soils affected by old, peeling or flaking paint are assessed in relation to the proposed use of the property, including high risk use by young children.*

2. Consents and Incidents Information (200m radius of the selected site)

The Council database was searched for records of the following activities within approximately 200 metres of the site and results are displayed in Figure 1 below:

- Pollution Incidents (including air discharges, oil or diesel spills)
- Bores
- Contaminated site and air discharges, and industrial trade process consents
- Closed Landfills
- Air quality permitted activities
- Identified HAIL activities

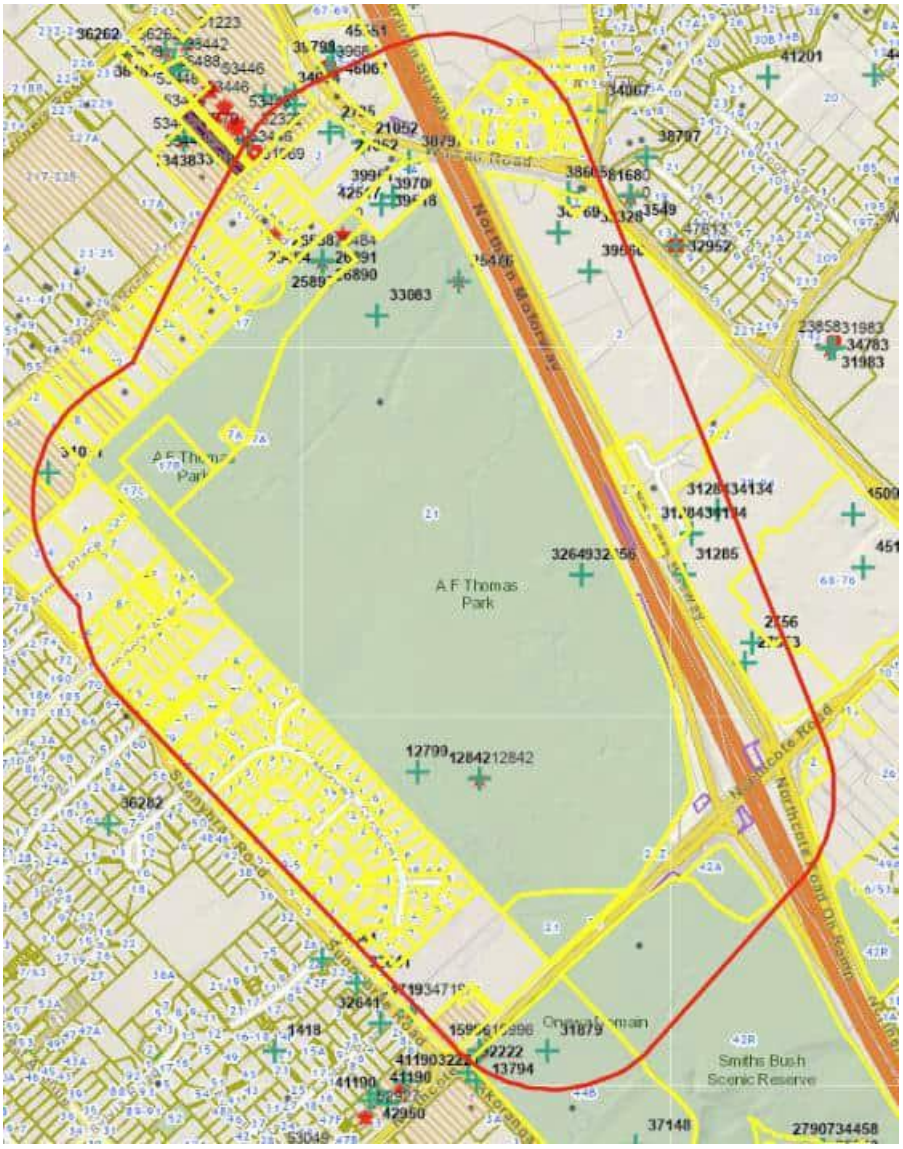


Figure 1: Selected Consents, Incidents and HAIL activities within approximately 200m of the subject site

Legend:

Relevant details of any pollution incidents and consents and HAIL activities are appended to this letter (Attachment A). Please refer to the column titled 'Property Address' on the spreadsheet to aid in identifying corresponding data on the map.

For any identified HAIL sites, please refer to the tab "HAIL activities" for more information (Column C and D include HAIL activity details where these are available).

AND

The following site within the search area have been identified as closed landfills and may have been subject to historical filling / importation of unverified-origin material. Please note that this information is indicative only and our database of such sites is incomplete.

A. INDICATIVE ONLY	**Please contact closedlandfills@aucklandcouncil.govt.nz**
OWNERSHIP:	Zero Waste Network
SITE ID:	Unknown
PROPERTY DESCRIPTION ADDRESS:	9 Porana Road, Wairau Valley
SITE NAME:	Wairau Zero Waste Hub

Please note:

The HAIL activity hatching in Figure 1 only reflects whether a site has been identified as a HAIL site (both verified and non-verified) by the Council and the type of HAIL associated with the site. This does not confirm whether the site has been formally investigated or the contamination status of the property (e.g. contaminated, remediated etc.). Additionally, due to limitations within Council's records, the specific HAIL activity is not included in the data for all properties. For further information on any of these known HAIL sites, a subsequent site contamination enquiry can be lodged for the specific property (up to 5 adjacent properties can be covered in one request).

While the Auckland Council has carried out the above search using its best practical endeavours, it does not warrant its completeness or accuracy and disclaims any responsibility or liability in respect of the information. If you or any other person wishes to act or to rely on this information, or make any financial commitment based upon it, it is recommended that you seek appropriate technical and/or professional advice.

If you wish to clarify anything in this letter that relates to this site, please contact contaminatedsites@aucklandcouncil.govt.nz. Any follow up requests for information on other sites must go through the online order process.

Should you wish to request any of the files referenced above and/or listed in the attached spreadsheet for viewing, please contact the Auckland Council Call Centre on 301 0101 and note you are requesting former Auckland Regional Council records (the records department requires three working days' notice to ensure the files will be available).

Please note Auckland Council cost recovers officer's time for all site enquiries. As such an invoice for the time involved in this enquiry will follow shortly.

Yours Sincerely,

Contamination, Air and Noise Team
Specialist Unit | Planning & Resource Consents
Auckland Council