

Hamilton - Waikato - Waipa Metropolitan Area - Southern Metro Wastewater Detailed Business case - Site Selection Options Report

Metro Wastewater Project Partners
March 2022

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1. Introduction

1.1 Purpose of the report

This report details the option development and assessment that was undertaken to identify a preferred location for new wastewater treatment facilities south of Hamilton. This report supports the Economic Case for the Hamilton - Waikato Southern Metropolitan Area Wastewater Detailed Business Case (DBC) project and provides an overview of the approach to optioneering and an assessment of whether the investment represents value for money.

In the Waikato, there are few fully compliant municipal wastewater treatment plants (WWTPs) and the majority of municipal wastewater discharge consents will expire in the next 10 years. Many Waikato communities require urgent investment in their three waters infrastructure to address existing and future performance requirements and needs.

Territorial authorities are under increasing pressure to provide new and enhanced infrastructure that progress toward achieving Te Ture Whaimana and the objectives set out in the National Policy Statement (NPS) for Freshwater Management, deliver on community expectations for environmental quality, respond to growth pressures and unlock the economic potential of their communities.

Territorial authorities have budgeted for significant investment in their three waters services in their 2018-2028 long term plans (LTPs). However, this level of investment is unlikely to satisfy regulatory obligations (particularly following the establishment of Taumata Arowai), or adequately respond to current and future growth pressures and long-term environmental expectations.

This project seeks to provide a long-term wastewater treatment infrastructure solution for the Hamilton-Waikato catchment metropolitan areas. This project evaluates sub-regional solutions that operate across territorial boundaries, which may deliver greater outcomes, community benefits and overall efficiencies than where solutions were constrained by these boundaries.

1.2 Report structure

This report covers the development and assessment of the long list of potential sites, as well as the development of the short list. The analysis of the potential short list sites is covered in greater depth, reflecting the amount of detail required to identify a preferred solution.

The preferred solution was identified following a range of technical assessments on the potential short list sites. The preferred solution is detailed in this report, along with an overview of further analysis that is recommended to refine and confirm the preferred option as part of the next steps for the project.

The remainder of this report is structured as follows:

- **Section 1** outlines the context for the project and includes an overview of the study area. It also details the site selection methodology, which includes constraints mappings, identification of NOGO areas and sites of cultural or archaeological significance.
- **Section 2** details the long list site identification and assessment process that was undertaken to identify a short list of potential sites for new wastewater treatment facilities.
- **Section 3** summarises the short list site identification and assessment process that was undertaken to identify a preferred solution.
- **Section 4** documents the preferred solution and outlines the further analysis that is recommended to refine and confirm the preferred option.

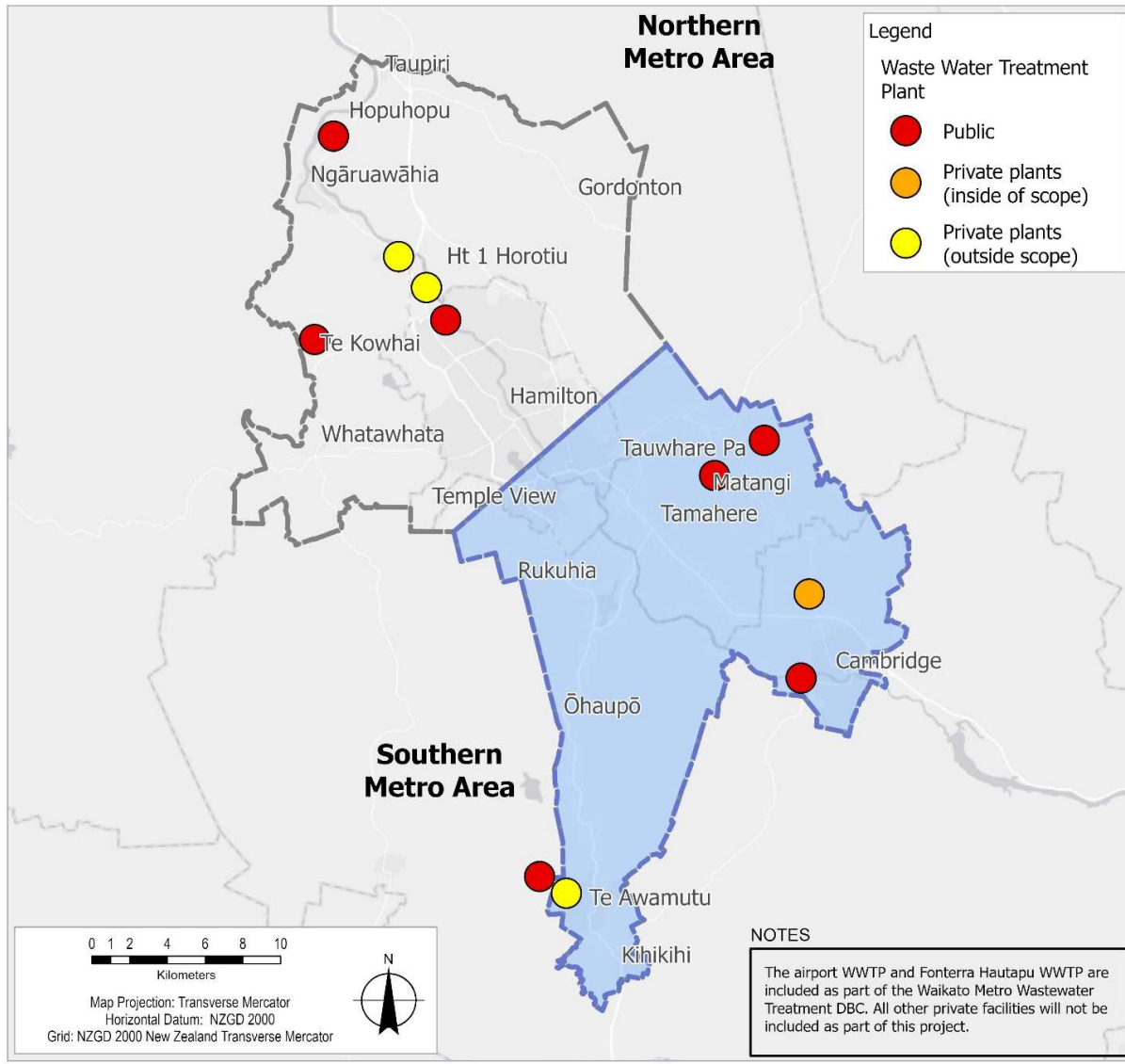
1.3 Geographical context

The study area for this project is referred to as the Southern Metro Area, which includes the area south of Hamilton to Te Awamutu. The study area includes the following areas:

- Cambridge
- Hamilton Airport
- Hamilton (South)
- Matangi
- Ohaupo
- Rukuhia
- Tamahere
- Tauwhare Pa
- Te Awamutu /Kihikihi.

Figure 1 provides an overview of the areas and shows the location of the existing treatment plants currently servicing the Southern Metro Area.

Figure 1 Metro Wastewater Detailed Business Case Study Area; Southern Metro Area



1.4 Site selection methodology

Over past 20 years, GHD has developed a systematic and transparent Multi-Criteria Analysis (MCA) framework to assess the suitability of facilities and infrastructure such as wastewater treatment facilities within a defined study area. The tool provides an integrated approach that combines the constraints and opportunities identified in the natural and built environment, whilst also considering social and cultural heritage criteria.

This well-established approach provides a transparent overview of the assessment and suitability of potential sites, where it is possible to observe the cumulative effects of constraints and opportunities to identify optimal locations to progress for further technical analysis.

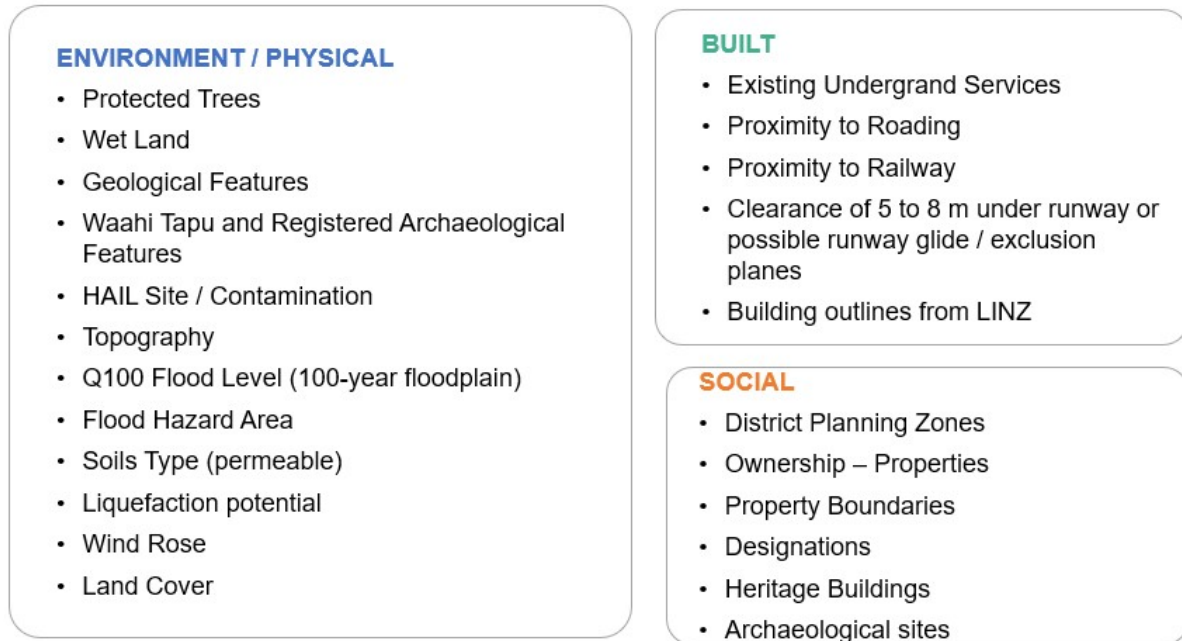
The results from the MCA help enable evidence-based investment decisions and reduces the risk of high costs during subsequent phases of the project by identifying constraints early in the site selection process.

The suitability of potential sites for a Wastewater Treatment Plant (WWTP) have been assessed within the South Metro Area using the site section methodology described below.

1.4.1 Identify constraints

Constraints have been identified by the project team and discussed and agreed during workshops with both the client and stakeholders as outlined in the Long list and Short list reports. Site constraints were categorised as shown in Figure 2.

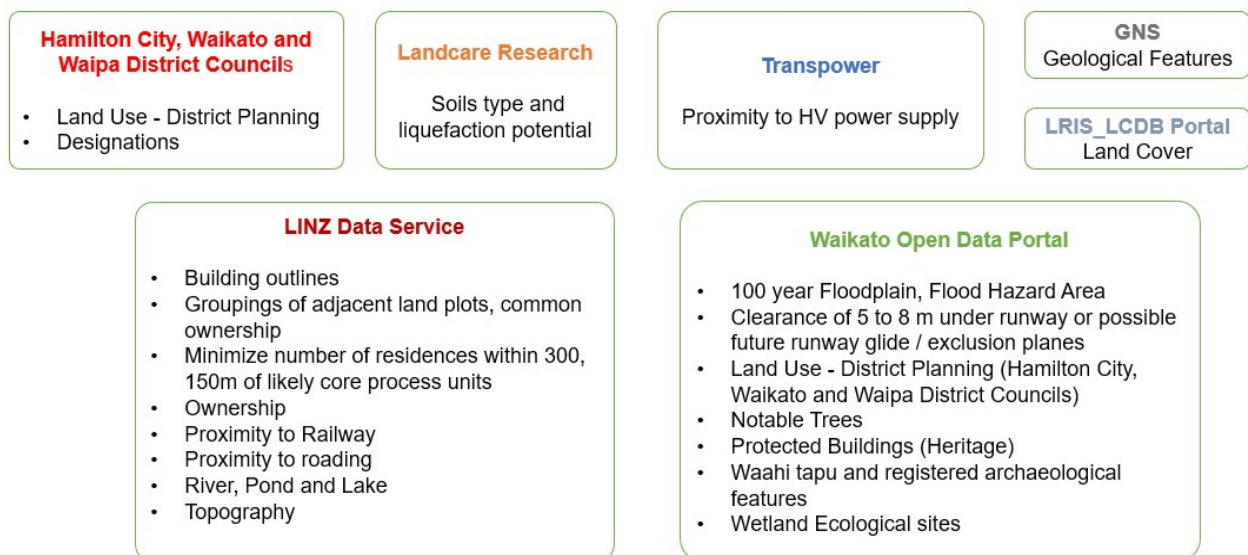
Figure 2 Constraints considered



1.4.2 Data collation

GIS constraint layers have been collated from the Hamilton City Council, Waipa District Council and Waikato District Council GIS databases and from open data source as summarised in Figure 3.

Figure 3 Data sources

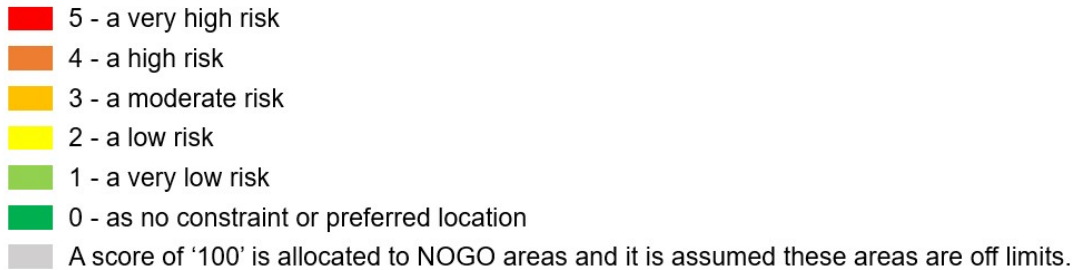


1.4.3 Score constraints

All constraints were then scored from 0 to 5 based on their suitability and risk. Very high-risk areas were scored 5, and the lowest scores were scored 0, identifying no constraint present. NOGO areas were scored 100 and are considered to be fatally flawed and therefore were not considered further.

As part of the scoring of the known constraints, buffer boundaries were also considered (i.e., a 50-metre buffer boundary from all roads, a 300-metre buffer boundary from the river), potential sites that are located within buffer boundaries were also identified as NOGO areas. NOGO areas are considered to be areas of very high sensitivity, or very high impact which must be avoided. The constraint scoring criteria is shown in Figure 4.

Figure 4 Scoring scale



1.4.4 Identify initial longlist areas

The constraints mapping exercise produces a heat map, which helps the project team to identify suitable areas for a WWTP. Suitable areas are shown as green shaded areas on a map, whereas high-risk areas are shaded red and NOGO areas are shaded grey.

The heat map provides an initial assessment of potential areas with lowest impact and therefore highest suitability for development of a WWTP. The heat map was then overlayed with land parcels from potentially interested parties (including existing council land and land owned by Her Majesty the Queen). At this stage specific stakeholders were consulted to provide further insights into the areas with the greatest potential.

1.4.5 Identify initial discharge options

Several wastewater discharge options were considered for each of the potential areas identified by the heat map exercise. This included:

- Discharge of treated wastewater to land (either via slow-rate irrigation or rapid infiltration)
- Discharge to the surface waterways (either the Waikato River or smaller streams through a direct discharge/diffuser structure or rock passage)
- Discharge to wetlands (as part of a restoration type discharge combined with restoration planting)
- Reuse (either industrial reuse or indirect potable reuse)

1.4.6 Confirm assessment criteria

The project team reviewed the identified criteria and through the assessment process identified any potential 'double counting' or inconsistencies to confirm the criteria for assessment.

1.4.7 Assess longlist site areas

The longlist of potential site options was assessed against criteria (outlined in Section 2.7) and discussed and refined following feedback during client and stakeholder workshops (outlined in the Long List and Short List reports). The additional criteria considered the technical feasibility of the potential sites. A shortlist of potential WWTP sites was identified using this approach.

1.4.8 Assess shortlist sites

Shortlisted sites were then re-assessed against the MCA criteria, with additional consideration given to land/property ownership.

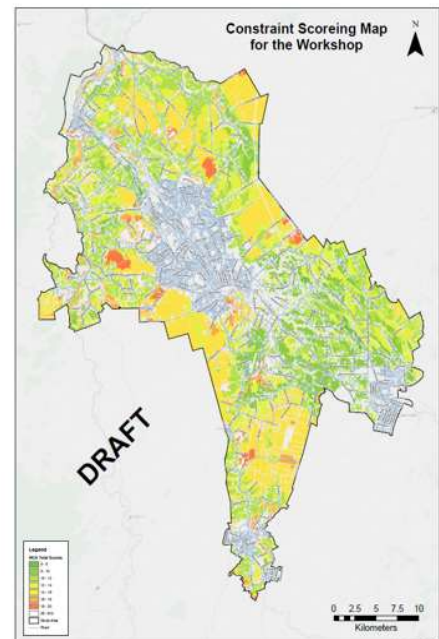
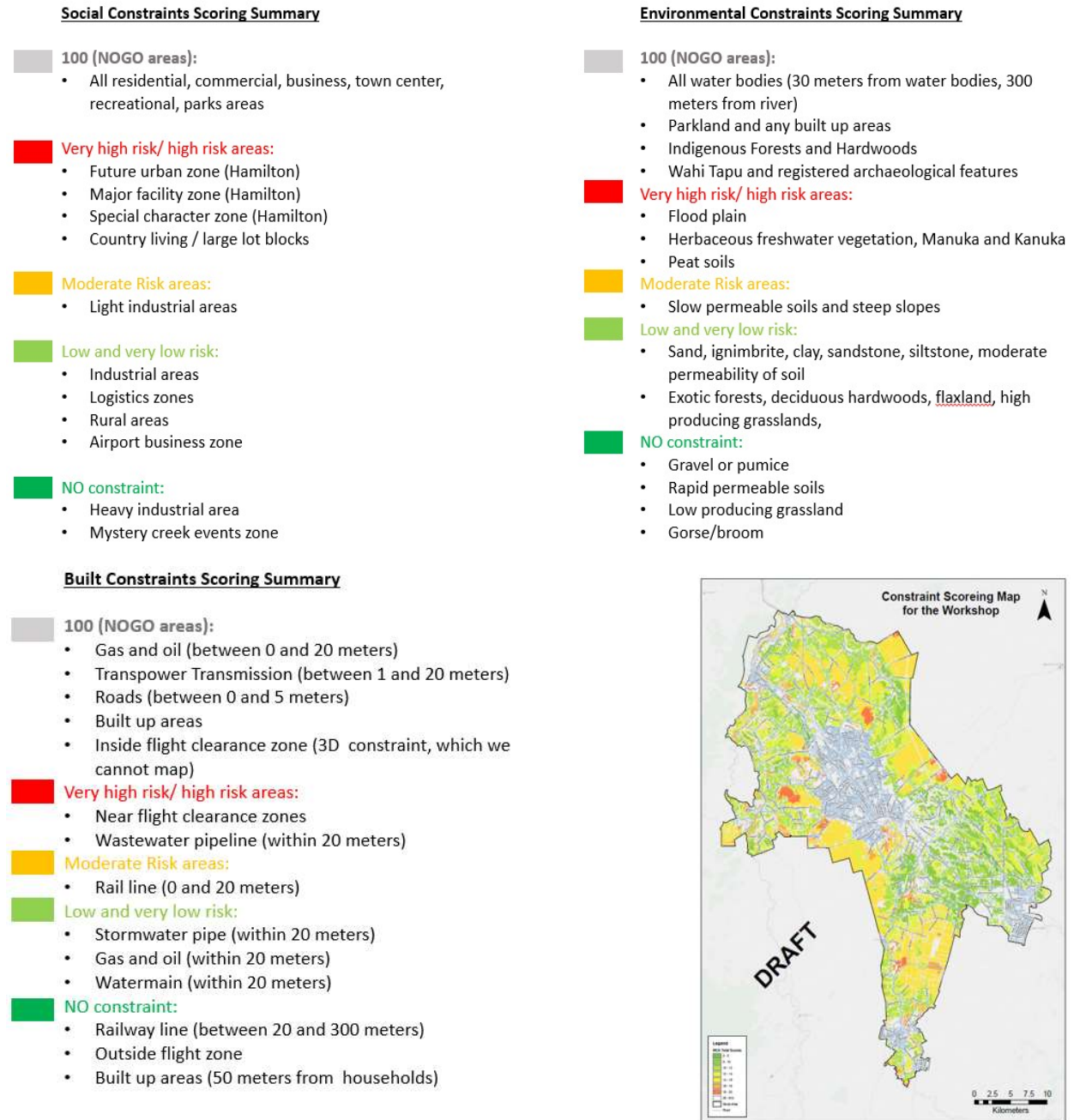
Further details about the site selection methodology is described in Section 2 that follows.

2. Longlist Development and Assessment

2.1 Identifying and scoring constraints

As described in the methodology above, constraints were identified and scored by the project team and refined during workshops with the client and stakeholders. The outcome of this analysis and the heat map that was produced is provided Figure 5.

Figure 5 Long List Site Area Analysis



2.2 Details for NOGO areas

As noted above, NOGO areas shown in grey on the heatmap were considered to be fatally flawed and not progressed further. All NOGO areas are in areas of high sensitivity, or high impact which must be avoided.

As part of the scoring of the known constraints, buffer boundaries were also considered (i.e., a 50-metre buffer boundary from all roads, a 300-metre buffer boundary from the river), potential sites that are located within buffer boundaries were also identified as NOGO areas.

Figure 6 NOGO assessment criteria

Any urban areas zoned for:

- Business and commercial activity
- Residential activity
- Pa
- Recreational activity
- Community facilities
- Knowledge zones
- Open space
- Transport corridors
- Deferred reserved zones
- Marae Development Zone
- Schools and universities

AND

- With 20 meters of gas and oil lines
- Within 20 meters of transpower transmission
- With 5 meters of road
- Within 20 meters of protected trees
- Within 300 meters of the river
- Within 30 meters of any other water body
- Waahi Tapu and registered Archaeological Features (>100m for very high sensitivity areas, >15m for moderate sensitivity areas)
- Indigenous Hardwoods and Forest areas
- Any built up areas
- Transport infrastructure

2.3 Waahi tapu and registered archaeological features

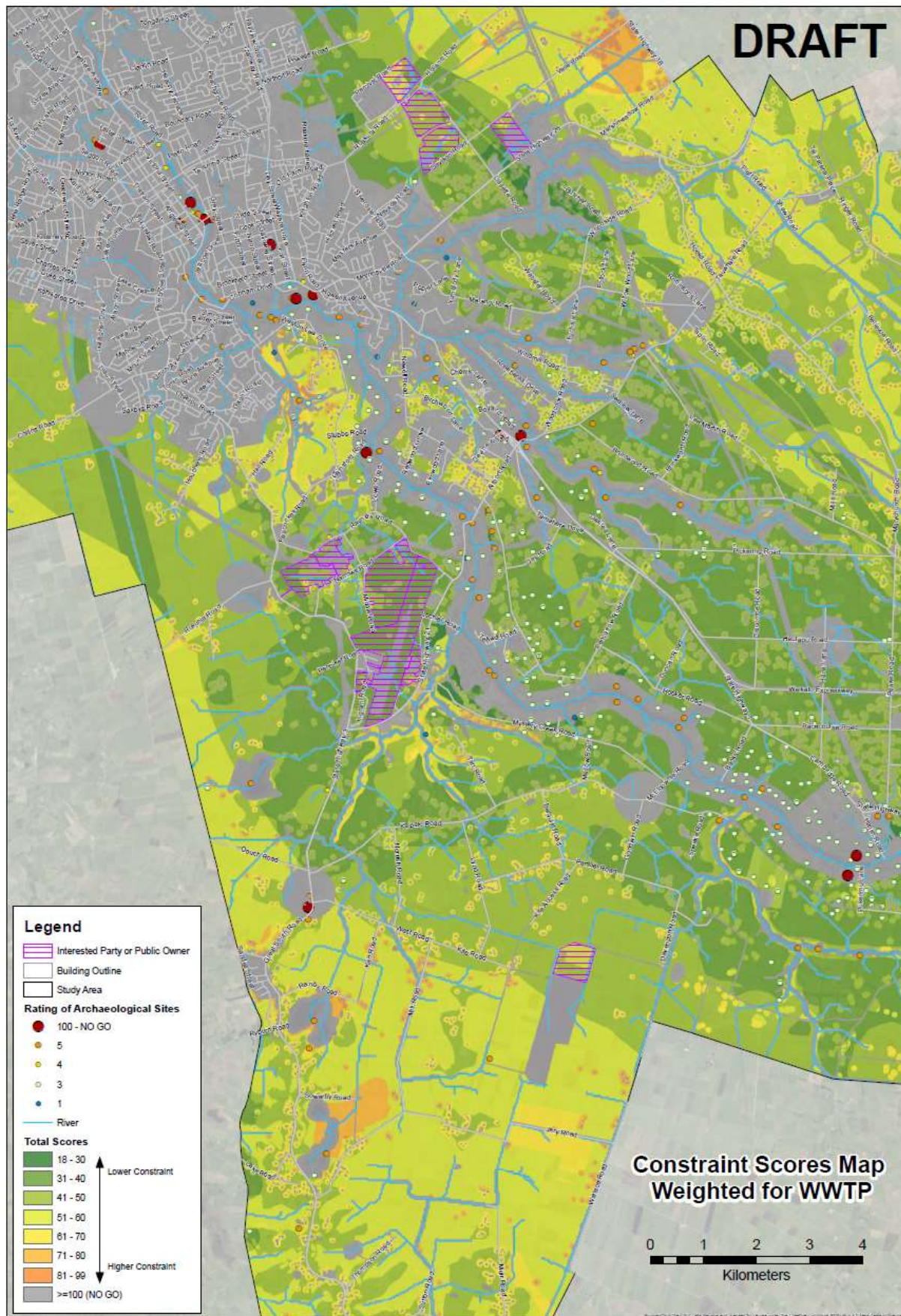
Registered archaeological site records were reviewed by the project team to identify areas of high sensitivity. These areas are shown by the red circles on the map provided in Figure 7 below.

These locations were considered to be NOGO areas and were avoided when identifying potential long list sites. They include burial sites, urupa, cemeteries and redoubts, and known archaeological features which can't reasonably be moved or sites that are listed by Heritage New Zealand.

Figure 7 also shows very high-risk sites (orange circles) and high sensitivity sites (yellow circles). These sites were identified following a review of sites registered on Archsite.

It is recognised that there are likely to be unknown sites of cultural or heritage located across the region. It is recommended that the preferred WWTP site is further investigated during the next phase of the project to identify any unknown areas of cultural or archaeological significance.

Figure 7 Constraints scores map weighted for WWTP



2.4 Buffer boundaries

Buffer boundaries were also considered during the constraint assessment phase. Many constraints require a 'buffer zone', including the sensitive NOGO areas. Some constraints however offer additional opportunities, for example, being located close to a road provides easier access and reduces the need for construction of access roads. These buffers and their relative 'scores' are summarised in Table 1.

Table 1 Site boundaries and buffer distances for known constraints

Constraint	Description	Buffer Distance When Needed	Rationale	Rating Score
Existing Services	Gas & Oil	0-20m	Relocation cost	NOGO
		>20m	Relocation cost	Low constraint risk
	Transpower Transmission	0-20m	Relocation cost	NOGO
		>20m	Relocation cost	No constraint risk
Proximity to Roading	Road Parcels	0-5m	Relocation cost	NOGO
		>5m	Relocation cost	No constraint risk
Proximity to Railway	Railway Line	0-20m	Relocation cost	Moderate constraint risk
		>20m	Relocation cost	Low constraint risk
Building outlines from LINZ		0-50m	Planning requirement & building proximity	NOGO
		>50m	Planning requirement & building proximity	No constraint risk
Protected Trees	Within 10m of a protected tree or group of trees?	>20m	Planning requirement	NOGO
Water Bodies and Wetlands	River (Major river)	<500m*		NOGO
		500-5000m		Low constraint risk
		>5000m		High constraint risk
	Streams	>30m for smaller tributaries >100m for larger tributaries		NOGO
	Lake and Pond	>100m		NOGO
	Wetland Ecology sites	>100m		NOGO
Waahi tapu and registered archaeological features	NOGO area	>100m for very high sensitivity areas >15m for moderate sensitivity areas		NOGO

* This buffer was initially assessed as 300 metres for the heat mapping process and revised to 500 metres to confirm the long list areas

The above boundaries have been developed based on constraints and boundaries set for previous WWTP projects.

2.5 Identifying potential areas for a WWTP

Following the above analysis, the project team identified broad areas that were likely to be suitable for a WWTP. The initial selection of potential areas considered the following:

- Areas of lowest constraint were considered first (i.e., dark green, medium green areas on the heatmap)
- Properties with an area greater than 20 hectares
- Properties which avoid that are in close proximity to archaeological sites
- Properties which avoid streams or waterways where possible
- Properties which avoid proximity to lifestyle blocks and residential properties

- Properties which allow for ready vehicle access and avoid truck movements along smaller roads
- Properties of interested parties and some areas of publicly owned land of lower constraint

Additionally, some areas were identified to enable a broad geographical spread to be considered.

Figure 8, shows the general site areas that emerged as potentially suitable for a WWTP facility.

Figure 8 Emerging areas potentially suitable for a WWTP facility



Table 2 provides the rationale for the selection of these areas.

Table 2 Initial WWTP areas selected

Areas selected (Blue areas)	Areas Not selected (Red areas) – have several issues for each of the areas
<ul style="list-style-type: none"> • Areas of lowest constraint were considered first (i.e., dark green, medium green areas) • Properties with area > 20 hectares • Properties which avoid proximity to archaeological sites • Properties which avoid waterways • Properties which avoid proximity to lifestyle blocks and higher density areas • Properties which avoid areas of high consentability risk • Properties which allow for ready vehicle access and avoid truck movements along smaller roads • Properties of interested parties and some areas of publicly owned land of lower constraint 	<ul style="list-style-type: none"> • Large number of streams and waterways • High number of sensitive archaeological sites • High number of properties, households, and/or buildings • Locations which are not commercially viable • Higher sensitive vegetation (herbaceous freshwater vegetation) • Geological features, for example holocene swamp deposits • High producing cropland/fertile soils • Large number of lifestyle blocks • High consentability risk

2.6 Description of longlist site areas

The project team undertook further analysis to identify specific sites and land parcels within each of the blue shaded areas that were considered suitable for a WWTP. From this analysis eight longlist site areas were identified and assessed.

Potential longlist site areas are shown in Figure 9 and summarised in Table 3.

Figure 9 Eight proposed longlist site areas

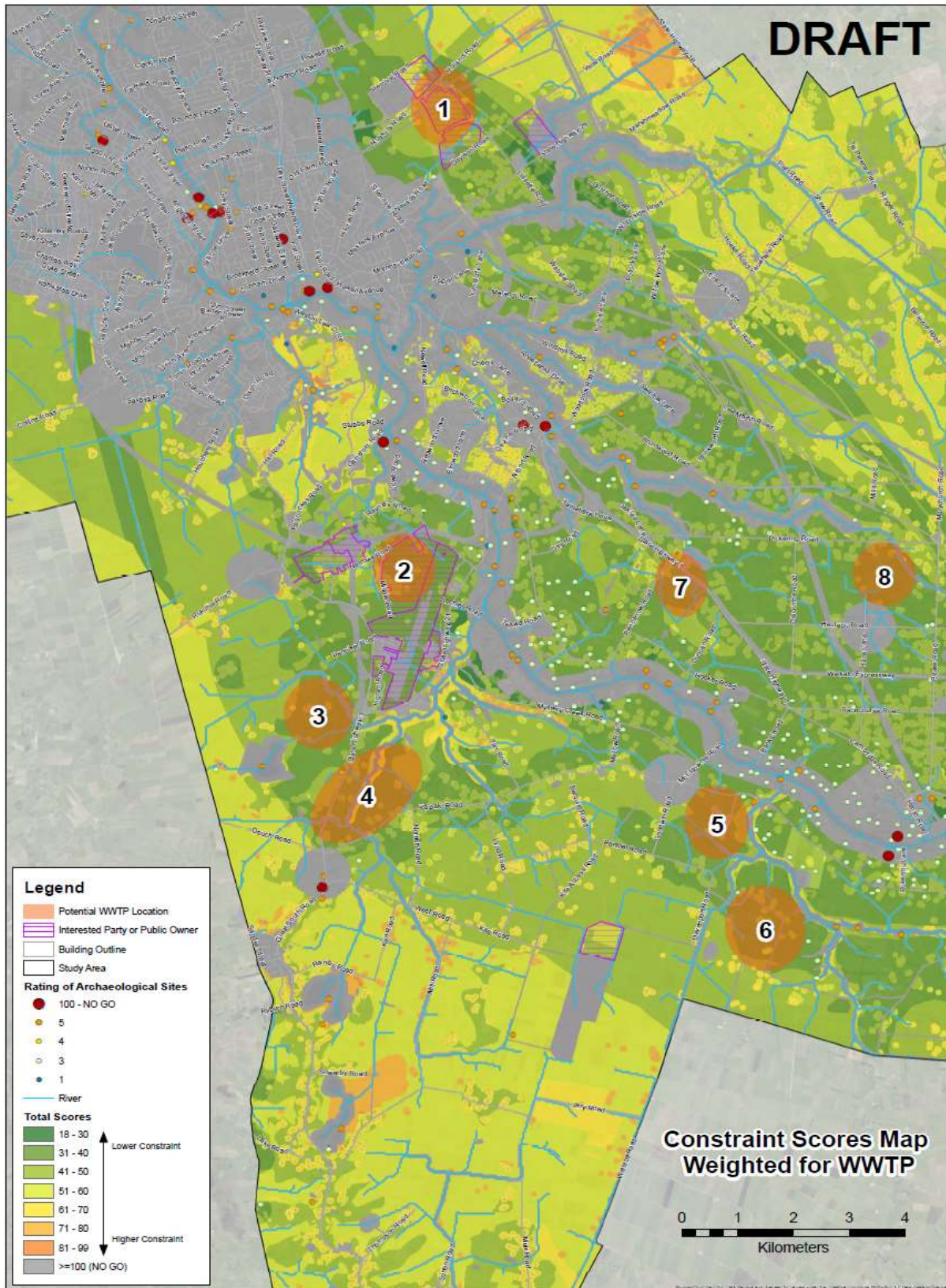


Table 3 Longlist site areas

Number	Description
Site Area 1	Site Area 1 is a package of land from interested parties. This area is of sufficient size and has no significant constraints have been identified in the mapping exercise. It is located adjacent to the Waikato Expressway but is located further from the initial service catchments near Hamilton Airport.
Site Area 2	Site Area 2 is in an industrial area, adjacent to the airport. The site is of sufficient size and no significant constraints have been identified in the mapping exercise. Access could be provided by a new transport corridor.
Site Area 3	Site Area 3 is in a low-density area, with neighbouring houses. This area is of sufficient size and no significant constraints have been identified in the mapping exercise.
Site Area 4	Site Area 4 is also located in a low-density area, with few neighbouring houses. It is a reasonable sized area with no significant constraints identified in the mapping exercise.
Site Area 5	Site Area 5 is reasonably close to the river in a low-density area. Need to consider more closely the proximity to streams and archaeological sites.
Site Area 6	Site Area 6 is of sufficient size and no significant constraints have been identified.
Site Area 7	Site Area 7 is of sufficient size and no significant constraints have been identified in the constraints mapping exercise. The site is east of the Waikato River, next to major road networks. Proximity to the cycle path would need to be considered if this option was shortlisted.
Site Area 8	Site Area 8 is of sufficient size and no significant constraints have been identified. The site is east of the Waikato River, next to major road networks, and is situated in a low-density area.

2.7 MCA assessment criteria

An MCA which reflects the MCA used for the options assessment within the Economic Case was used to assess the technical aspects of each of the longlist site areas. The criteria used for the assessment is described in Table 4. As indicated, some of the criteria will require further investigation as part of developing the preferred option.

Table 4 MCA categories for site selection

Criteria category	Criteria description
Wastewater treatment solutions restore and enhance cultural connectivity with the river so that by 2050 Marae and iwi access to the river and other sites of significance within the metro spatial area is no longer impeded by wastewater treatment solutions	Opportunities nearby (within 7km) for discharge to land
	Opportunities nearby (~5km) for potable or industrial reuse
	Ability to enhance cultural/ recreation connectivity with the river

Criteria category	Criteria description
Constructability (treatment)	Potential construction issues
Constructability (conveyance / reticulation)	Distance to contributing catchments (raw WW conveyance) - this includes cost implications, consentability, maintenance, operations
Land Impacts	Potential for impacts to sites of cultural significance
	Potential site impacts to environment
	Impacts to properties during construction
	Opportunity Cost of land use
Community Acceptability / Consentability Risks	Impacts on natural and physical qualities and characteristics of the area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes
	Impacts on the natural character of wetlands, rivers, lakes, margins
	Impacts on neighbouring houses and other activities potentially sensitive to noise from traffic movements and risk of odours
Operability issues and opportunities	Access opportunities and potential traffic impacts
	Length and complexity of additional conveyance infrastructure
	Potential to enhance operational efficiencies of the plant
Opportunities	TBC – i.e., potential for blue-green corridor, supporting iwi aspirations, flexibility to accommodate growth, Wetland restoration opportunities nearby (within ~5km)

Key implementation steps are outlined in the Management Case within the Detailed Business Case.

2.8 Longlist site area assessment

The summary of the longlist site area assessment is provided in Table 5.

Table 5 Longlist of WWTP areas MCA

Criteria	Longlist of site areas							
CRITERIA	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
Opportunities nearby (within 7km) for discharge to land	2 Slow rate irrigation is likely to be feasible for a portion of the discharge provided that sufficient land can be acquired, and geotechnical investigations confirm land drainage suitability	2 Slow rate irrigation is likely to be feasible for a portion of the discharge provided that sufficient land can be acquired, and geotechnical investigations confirm land drainage suitability	2 Slow rate irrigation is likely to be feasible for a portion of the discharge provided that sufficient land can be acquired, and geotechnical investigations confirm land drainage suitability	1 Slow low-rate irrigation is likely to be feasible for a portion of the discharge, however land discharge options are constrained by poorly draining peat soils to the west and south of the site	2 Given the high level of very-poorly draining peat soils in the vicinity of the site, slow rate irrigation options are likely to be limited, however there is potential for rapid infiltration beds onsite. Further geotechnical investigations will be required to confirm suitability of land drainage characteristics	2 Given the high level of very-poorly draining peat soils in the vicinity of the site, slow rate irrigation options are likely to be limited, however there is potential for rapid infiltration beds onsite. Further geotechnical investigations will be required to confirm suitability of land drainage characteristics	2 Adjacent land within 5-7km radius mainly consists of large rural land parcels with well-draining loamy soils. Slow-rate irrigation may be feasible if sufficient land can be acquired.	2 Adjacent land within 5-7km radius mainly consists of large rural land parcels with well-draining loamy soils. Slow-rate irrigation may be feasible if sufficient land can be acquired.
Wetland restoration opportunities nearby (within ~5km) for discharge to wetlands	1 Collaboration with iwi and site-specific environmental investigations would be required to confirm discharge opportunity to wetlands	2 A potential wetland restoration area is present on the edge of Rukuhia Swamp. Field ecology and engineering investigations would be required to confirm	2 A potential wetland restoration area is present on the edge of Rukuhia Swamp. Field ecology and engineering investigations would be required to confirm	2 A potential wetland restoration area is present on the edge of Rukuhia Swamp. Field ecology and engineering investigations would be required to confirm	0 No obvious wetland restoration sites are present however further investigation is required	0 No obvious wetland restoration sites are present however further investigation is required	0 No obvious wetland restoration sites are present however further investigation is required	0 No obvious wetland restoration sites are present however further investigation is required
Opportunities nearby (within ~5km) for potable or industrial reuse	2 Potential wet industry reuse at Ruakura	2 Close proximity to existing and proposed industrial facilities near Hamilton Airport	2 Close proximity to existing and proposed industrial facilities near Hamilton Airport	2 Close proximity to existing and proposed industrial facilities near Hamilton Airport	1 Limited potential for indirect potable reuse given the distance from wet industry (6+ km)	1 Limited potential for indirect potable reuse given the distance from wet industry (6+ km)	0 Limited potential for indirect potable reuse given the distance from wet industry	0 Limited potential for indirect potable reuse given the distance from wet industry
Liquefaction risk at each site and access to utilities	1 Located in WRC most hazardous 'A' liquefaction zone, peat swamp.	1 Located in WRC quite hazardous 'B' liquefaction zone. On ends of 2x 11kV circuits.	-2 Located in WRC most hazardous 'A' liquefaction zone, peat swamp.	-1 Located in WRC most hazardous 'A' liquefaction zone, peat swamp.	-1 Located in WRC quite hazardous 'B' liquefaction zone. End of minor 11kV feeder.	3 Located in WRC quite hazardous 'B' liquefaction zone.	1 Located in WRC quite hazardous 'B' liquefaction zone.	-3 Located in WRC quite hazardous 'B' liquefaction zone. End of minor 11kV feed

Criteria	Longlist of site areas							
CRITERIA	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
	11kV network and Waikato Water Supply also through site	Currently unserviced needs 400m water pipe extension from Waipa network	End of 11kV feeder. Unserved needs 400m extension from Waipa network	On end of 2x 11kV circuits Waipa water network to edge of site. Needs extension into site	End of Waipa water network enters site	Double ended 11kV feed through site Waipa Water supply through site	Double ended 11kV feed and extreme end of Waikato Water network ends near site.	Nil potable water servicing within several km
Distance to contributing catchments (raw WW conveyance) - this includes cost implications, consentability, maintenance and operations.	-3 Very long pipelines increase construction risk. Peacocks pipeline constructed through built-up areas	0 One river and SH1 crossings required	-1 Longer pipelines from Peacocks and Matangi. One river and SH1 crossings required. Long treated water discharge pipeline required	-1 Longer pipelines from Peacocks and Matangi. One river and SH1 crossings required. Long treated water discharge pipeline required	-2 Longer pipelines from Peacocks, Ohaupo and Matangi. Shorter pipeline / smaller PS for Cambridge. One river and SH1 crossings required	-2 Longer pipelines from Peacocks, Ohaupo and Matangi. Shorter pipeline/smaller PS for Cambridge. One river and SH1 crossings required. Long treated water discharge pipeline required	-1 Best alternative to Option 2 as most central. Three river crossings, but only one SH crossing required	-3 Longer pipelines from Peacocks and Ohaupo. Shorter pipeline/smaller PS for Cambridge. Three river and SH1 crossings required. Long treated water discharge pipeline required
Potential for impacts to sites of cultural significance	-1 Low/medium risk of impact on known archaeological sites	-1 Low/medium risk of impact on known archaeological sites	-1 Low/medium risk of impact on known archaeological sites	-2 Higher potential risk of impacting on known archaeological site investigation will be required for sites which are within boundary (site 154)	-2 Higher potential risk of impacting on known archaeological site investigation will be required for sites which are very close to boundary	2 Higher potential risk of impacting on known archaeological site investigation will be required for the 2 pa sites and 740 and 157 which are on the boundary	0 Low risk of impact on known archaeological sites	0 Low risk of impact on known archaeological sites
Impacts on natural and physical qualities and characteristics of the area	2 A landscape that is in transition from rural to urban, with a mix of rural and urban activities (e.g., a cafe), power pylons visible in midfield view	3 Industrial and airport location, so a WWTP would not have a significant adverse effect on the amenity values of this locality	-1 A horticulture / pastoral landscape, so a WWTP may have an impact on the amenity values of this locality	-1 A horticulture / pastoral landscape, so a WWTP may have an impact on the amenity values of this locality	-2 A pastoral landscape, many properties with hedges. A WWTP is this location may have a significant impact on the amenity values of this locality	-2 A pastoral landscape, many properties with hedges. A WWTP is this location may have a significant impact on the amenity values of this locality	-3 A WWTP might be highly visible in this landscape, given potential visibility from SH1 and a context of pasture, trees, and lifestyle properties	-3 A pastoral and horse stud landscape with a reasonably high density of houses. There is potential for a significant impact on the amenity values of this locality

Criteria	Longlist of site areas							
CRITERIA	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
Impacts on the natural character of wetlands, rivers and lakes and their margins	2 3 streams shown at the northern end of site, appears to be sufficient land well clear of streams shown	2 1 stream at northern end of site, appears to be sufficient land well clear of this stream shown	-2 2 streams at northern and southern ends of the site, appears to be sufficient land well clear of streams shown	-2 Streams bisect through middle of the site and northern and southern end. May be more difficult to find a location within site for a WWTP clear of existing streams	-1 Site 5 is bisected through the southern extent of the site by a stream, and another stream is situated at the northern end. There may be sufficient land clear of streams	0 There is a stream at the northern end of the site and a stream on the western side. There appears to be sufficient land well clear of streams shown on the maps to locate a WWTP	2 Farm drains present. Wooden riparian margin located just beyond site at northern end. Sufficient space south of expressway to locate a WWTP well clear.	2 Farm drains are prevalent. Sufficient space to locate to minimise
Impacts on neighbouring houses and other activities potentially sensitive to noise from traffic movements and risks of odours from the WWTP	-1 14 houses within the site and 14 houses 250m from the edge of the site. 21 houses between 251-500m from the edge of the site	-1 10 houses within the site and 12 houses 250m from the edge of the site. 21 houses between 251m and 500m from the edge of the site	1 1 house within the site and 10 houses 250m from the edge of the site. 9 houses within 251m and 500m from the edge of the site	-2 20 houses within the site and 27 houses 250m from the edge of the site. 28 houses between 251m and 500m from the edge of the site	2 5 houses within the site and 5 houses 250m from the edge of the site. 15 houses between 250m and 500m from the edge of the site	1 11 houses within the site and 5 250m from the edge of the site. 7 houses between 251 and 500m from the edge of the site	-1 8 houses within the site and 22 houses 250m from the edge of the site. 30 houses between 251m and 500m from the edge of the site	-1 5 houses within the site and 21 houses 250m from the edge of the site. 22 houses and 1 school between 251m and 500m from the edge of the site
What are the access opportunities? What are the potential traffic impacts?	3 Close expressway, good access to / from City	3 Surrounded by local roads & SH's and future Southern links	3 Close to SH3 & 21	2 Local roads and close to SH3 & 21	1 Small local roads away from SH	1 Small local roads away from SH	2 Small local roads close to expressway	1 Small local roads close to 1B
What is the length and complexity of additional conveyance Infrastructure?	-3 34km trunk conveyance pipeline and equivalent Pump Stations and Pipe Bridges	2 21km trunk conveyance pipeline and equivalent Pump Stations and Pipe Bridges	0 25km trunk conveyance pipeline and equivalent Pump Stations and Pipe Bridges	1 24km trunk conveyance pipeline and equivalent Pump Stations and Pipe Bridges	0 25km trunk conveyance pipeline and equivalent Pump Stations and Pipe Bridges	0 25km trunk conveyance pipeline and equivalent Pump Stations and Pipe Bridges	-1 32km trunk conveyance pipeline and equivalent Pump Stations and Pipe Bridges	-2 33km trunk conveyance pipeline and equivalent Pump Stations and Pipe Bridges

Following the MCA assessment longlist site areas 5 through to 8 were discounted due to:

High consentability risks associated due to the changing land uses

The existing land use has a high number of lifestyle blocks either within the site areas or surrounding the site areas. Industrial activity within these areas will reduce the aesthetics of the area, impact on the natural characteristics of the land and potential to impact on recreational areas. This is a particular issue for site areas 7 and 8 which are also adjacent to horse stabling areas.

Conveyancing risks

Site areas 5 and 6 require much longer pipelines for south Hamilton, Ohaupo, Matangi and a shorter pipeline for Cambridge. Site areas 7 and 8 require multiple river crossings and state highway crossings. These site areas also are not located near key servicing areas (i.e. south Hamilton or Cambridge) meaning longer pipelines for larger flows.

Site area limitations for water re-use

Site areas 7 and 8 have limited potential for water re-use given the distances from wet industry and other built-up areas which may reuse discharges in the future.

High risk with archaeological site areas

Site areas 5 and 6 have the highest potential for impacting known archaeological sites with a number of sites bordering these identified locations.

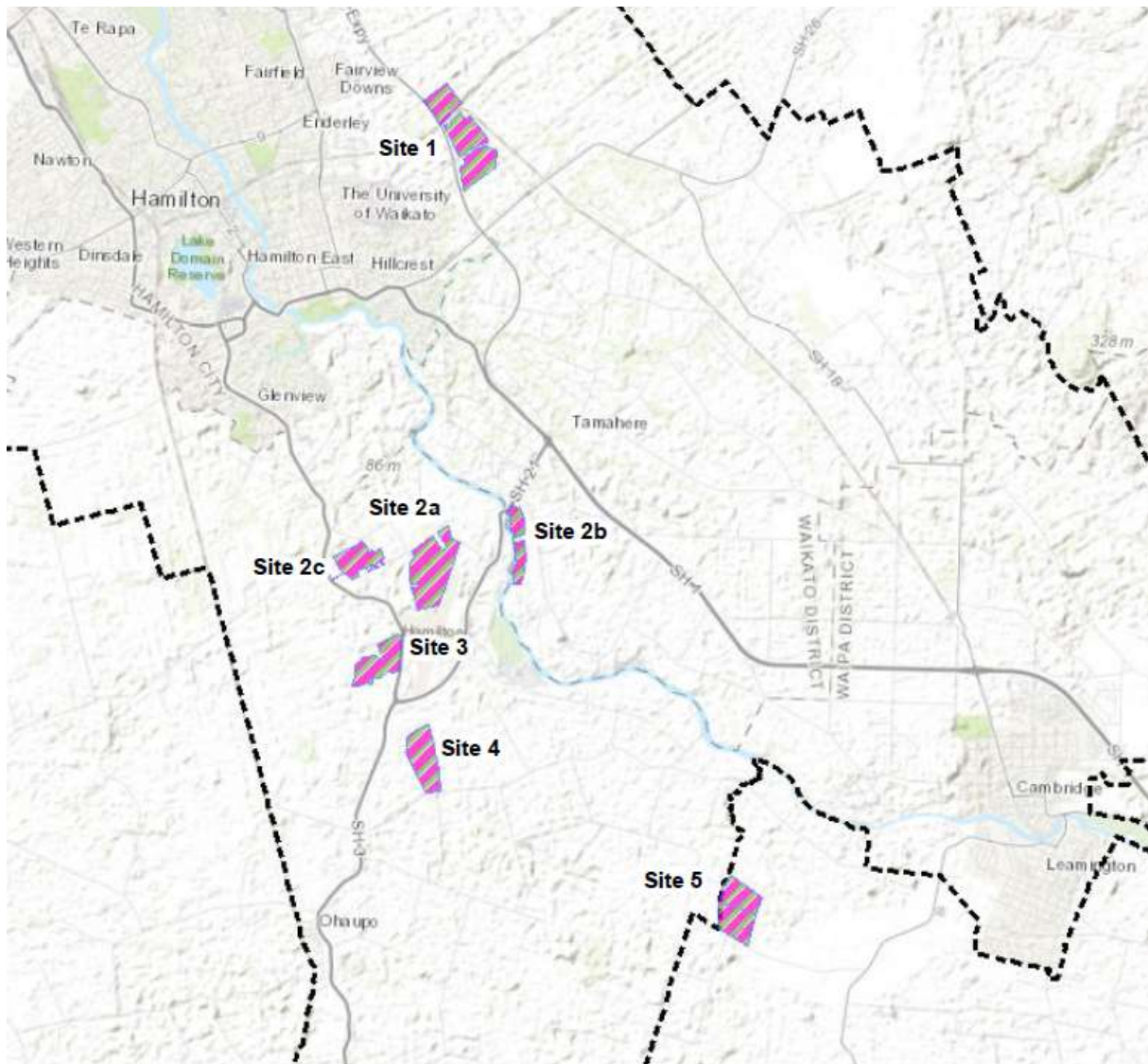
Following the MCA assessment longlist site areas 1, 2, 3 and 4 were carried forward as shortlist sites. Longlist site area 5 was also carried forward to retain an option that was located to the east of the study area and to maintain a geographic spread of potential WWTP sites.

3. Shortlist Development and Assessment

3.1 Description of shortlist sites

Five emerging sites were progressed for further investigated as part of a shortlist assessment process. The site areas which have been carried through to shortlisting have been refined to identify specific land parcels within each longlist site area. The shortlist sites include three potential sites located within the airport longlist site area 2, these are referred to as sites 2a, 2b and 2c. A description of each shortlist site is provided below. The site information below has been sourced from a Property Report (TPG, April 2021), see Appendix A.

Figure 10 Overview of shortlisted sites

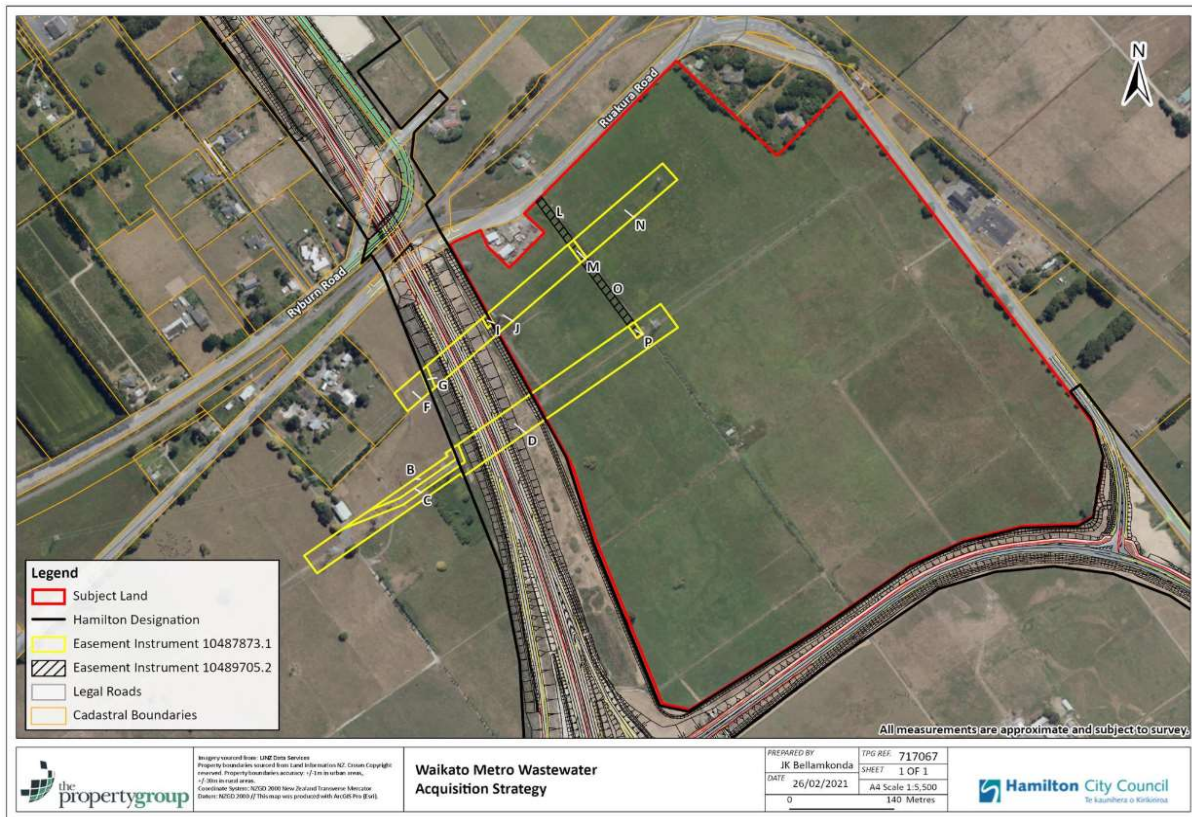


3.1.1 Shortlist site 1: Ruakura Limited, Ruakura Road, Hamilton

Site 1 is the northern most site within the study, located on Ruakura Road as shown in Figure 11. The site is currently owned by Ruakura Limited, which is a subsidiary of Tainui Group Holdings Limited. The site is approximately 43 hectares and is located within the Rural Zone under the Operative District Plan (ODP). The construction and operation of a WWTP would require a Notice of Requirement to designate the site for wastewater treatment (and disposal) purposes.

It is noted that the site is subject to a submission that has been lodged against the proposed Waikato District Plan, which requests the rezoning of the site to a new 'Ruakura Industrial Zone'. The land appears to be currently used for grazing purposes. It is understood that the vendor may be a willing participant in the process, which would avoid the need for purchase underpinned by Council's compulsory acquisition powers.

Figure 11 Shortlist site 1 overview

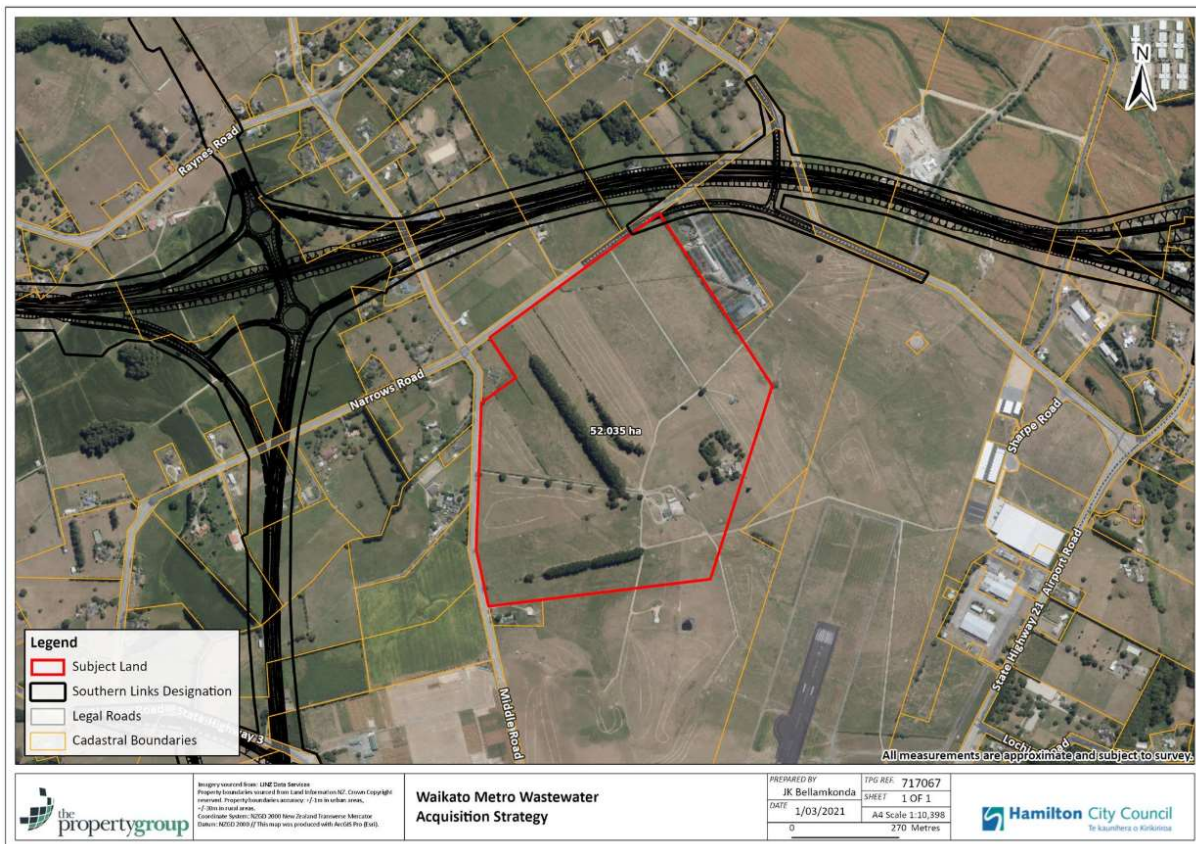


3.1.2 Shortlist site 2a: Waikato Regional Airport Limited, Rukuhia

Site 2a is owned by Waikato Regional Airport and includes the frontage to Narrows Road, Middle Road and Raynes Road in Rukuhia as shown in Figure 12. The site is approximately 52 hectares and is located within the Rural Zone of the Waipa District and is partially located within the Airport Business Zone. The construction and operation of a WWTP would require a Notice of Requirement to designate the site for wastewater treatment (and disposal) purposes.

The land appears to be currently used for grazing purposes. It is understood that the owners have development aspirations for the site and intend to lodge a private plan change application to re-zone the land to industrial. It is possible that construction of a WWTP may lead to the owners being able to develop their land ahead of time. It is noted that Waikato Regional Airport Limited's shareholders include all of the councils within the Southern Metro Area, which may help support the use of this site.

Figure 12 Shortlist site 2a overview



3.1.3 Shortlist site 2b: Riverside Golf Club Incorporated, Airport Road, Hamilton

Site 2b is owned by Waka Kotahi and is located on Airport Road in Hamilton as shown in Figure 13. The site is approximately 31 hectares and is located within the Rural Zone of the Operative Waikato District Plan. The land directly adjoins the Waikato River along the western boundary and this part of the site is identified as being a Significant Natural Area and a Significant Amenity Landscape Area.

A portion of the site is also subject to designation J22, the purpose of which is to enable maintenance, operation, use, and improvement of the state highway network in relation to the Southern Links section.

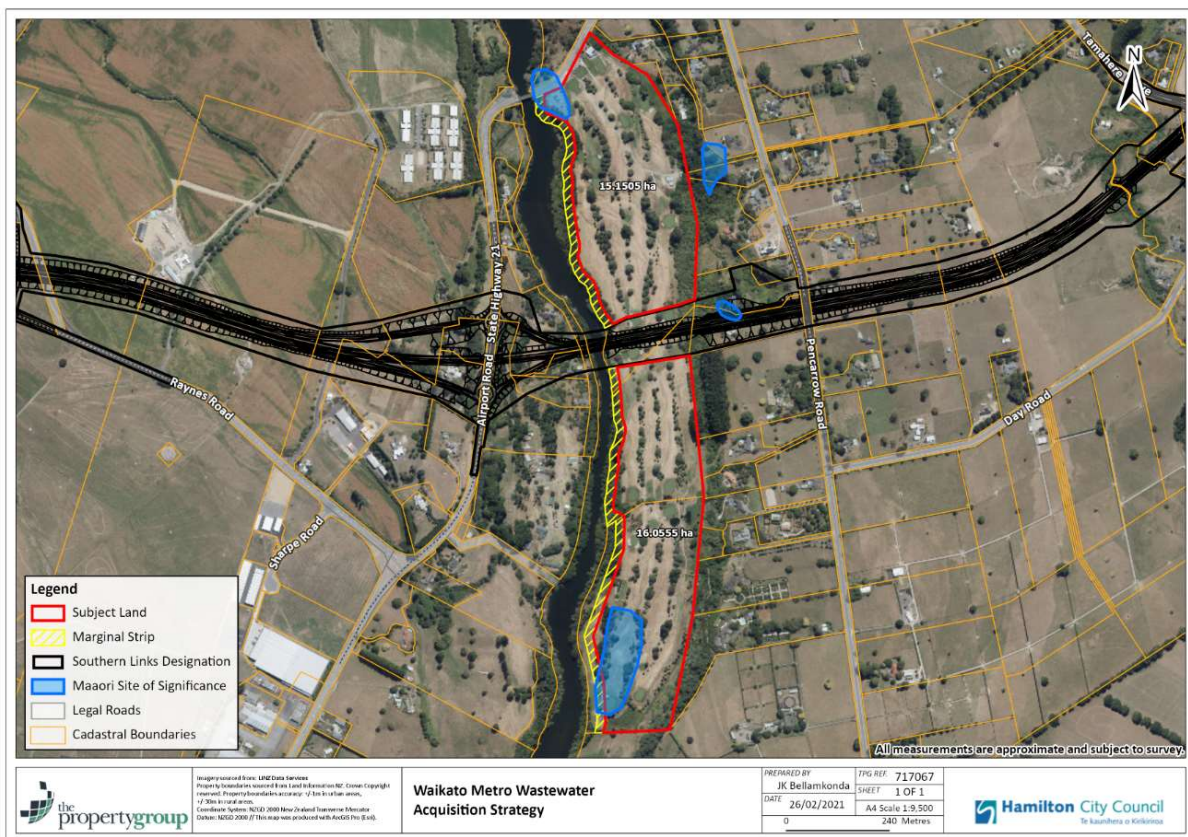
Two sites of significance to Maori have also been identified on the site, any earthworks within the vicinity of a Maori area of significance would require a resource consent, where the effects on heritage and cultural values are required to be assessed.

The construction and operation of a WWTP would require a Notice of Requirement to designate the site for wastewater treatment (and disposal) purposes.

The site is adjacent to the Waikato River and is within the river buffer zone which is identified as a NOGO criteria. The site was included for evaluation as it is a large land parcel held by the crown.

The land is currently used as an operational golf course. Upon closure of the course on or before 1 February 2022, the property will become vacant and available for either retention or disposal by the Crown. Transfer could be affected in terms of section 50 of the Public Works Act, which provides for transfers of land between the Crown and local authorities for the purpose of public works. The property will be severed into two parcels following completion of the Southern Links roading project and access between the two parcels would need to be negotiated with Waka Kotahi as a condition of sale.

Figure 13 Shortlist site 2b overview



3.1.4 Shortlist site 2c: Narrows Road / Ohaupo Road (SH3), Rukuhia

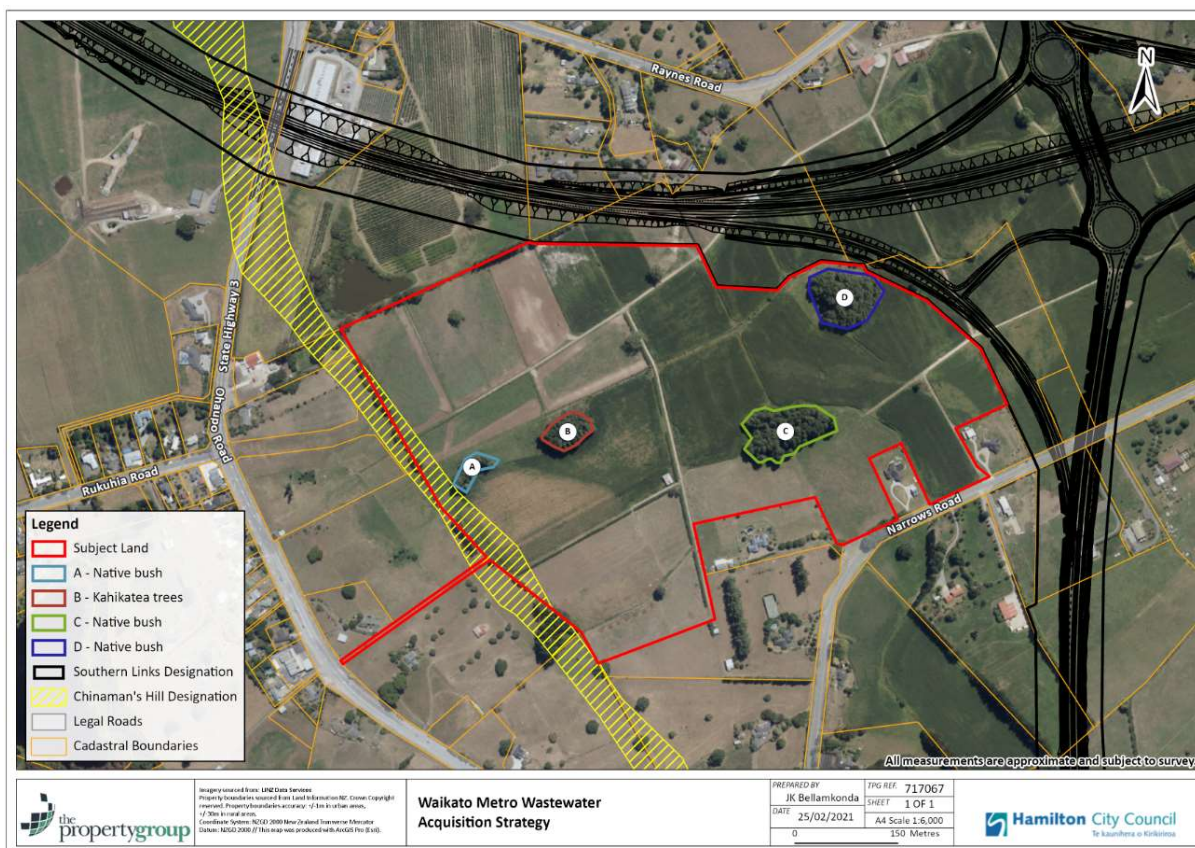
Site 2c is owned by Waka Kotahi and includes the frontage to Narrows Road and Ohaupo Road (SH3) in Rukuhia as shown in Figure 14. The site is approximately 35 hectares and is located within the Rural Zone of the Waipa District. A portion of the site is also subject to designation D156, in relation to the Southern Links.

The site adjoins the deferred large lot residential zone on the western boundary, and this adjoining land is also subject to a structure plan. The development on this adjoining land is anticipated beyond 2035 and has capacity for approximately 33 dwellings within the 11ha block of land. There are also three areas of native bush and one stand of Kahikatea trees located within the centre of the property that require on-going protection.

The construction and operation of a WWTP would require a Notice of Requirement to designate the site for wastewater treatment (and disposal) purposes.

The land appears to be currently used as an operational dairy farm, which forms part of a larger dairy farm purchased by the Crown for the Southern Links roading project. Once constructed, the subject property would be located directly adjacent to and south-west of a central interchange linking traffic moving east to west from Tamahere to Greenwood Street, and north to south from Peacocke to the Hamilton Airport and further south to Ohaupo and Te Awamutu. There are three other areas that will be severed by the Southern Links designation, but none are of sufficient size to meet the requirements of the project.

Figure 14 Shortlist site 2c overview



3.1.5 Shortlist site 3: Rukuhia Farm, Penniket Road, Rukuhia

Site 3 is owned by Rukuhia Farm Limited and is located adjacent to Penniket Road in Rukuhia as shown in Figure 15. The site is approximately 37 hectares and is located within the Rural Zone of the Waipa District

and is partially located with the Waka Kotahi Southern Links designation 156. The site is also located within the airport outer control boundary which triggers District Plan rules relating to noise sensitive activities which would be favourable than a more rural site.

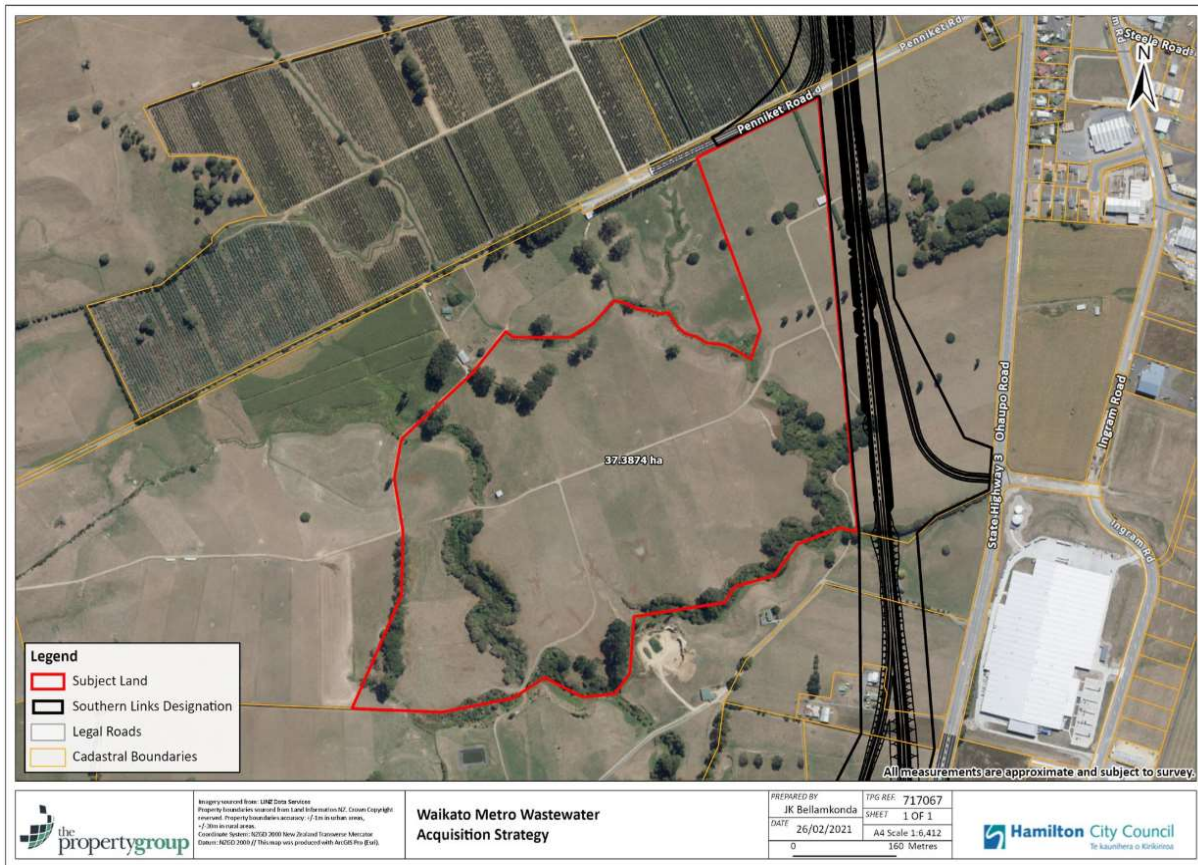
The site contains an area of vegetation which has been classified as a potential significant natural feature. The construction and operation of a WWTP would appear to require a Notice of Requirement to designate the site for wastewater treatment (and disposal) purposes.

The land appears to be currently used for dairy farming purposes. The land appears largely flat in contour, but it is bisected by a gully network along its western, eastern, and southern boundaries, which may present some additional construction requirements depending on the siting of building sand infrastructure.

The property is part of a larger holding used by the owner as a functioning dairy farm. Acquisition of part of the site for either the Southern Links project or for the proposed WWTP is likely to render it uneconomic without the purchase of additional land by the owner. In this case, the owner may request a total purchase or expect land to be vested by way of an exchange.

It is understood that owners have development aspirations for the site beyond its current use, which may aid discussions regarding a potential WWTP.

Figure 15 Shortlist site 3 overview



3.1.6 Shortlist site 4: Kaipaki Dairies Limited, Kaipaki Road, Kaipaki

Site 4 is owned by Kaipaki Dairies Limited and is located adjacent to Kaipaki Road in Kaipaki as shown in Figure 16. The site is approximately 63 hectares and is located within the Rural Zone of the Waipa District.

The site is also located within the airport outer control boundary, airport noise boundary, night noise boundary, main strip approach, transitional slope and horizontal surface which triggers District Plan rules.

A small portion of the site (northern boundary) is situated with Airport Designation Extra D66, for the purpose of Airport Runway Approach Lights and ancillary facilities and structures. There are height limitations for constructing buildings within the airport policy overlays and noise related rules.

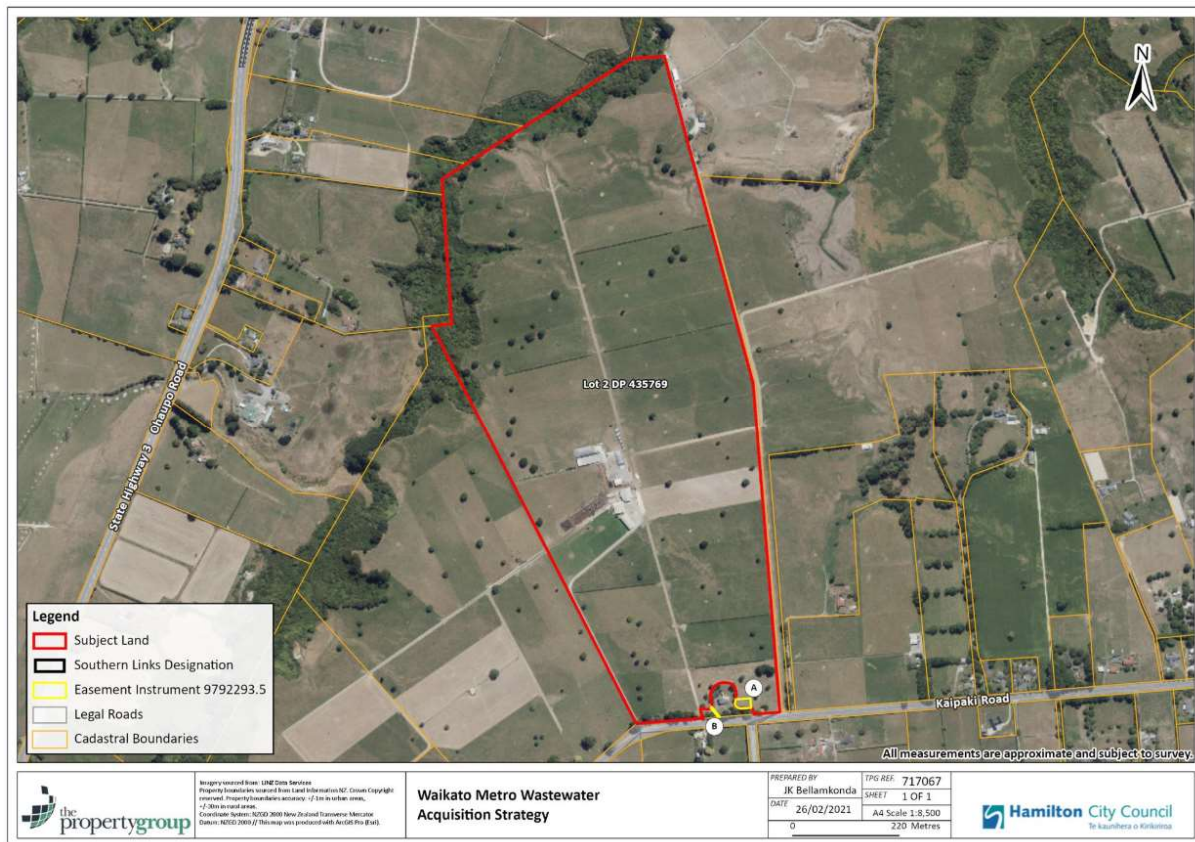
The site contains an area of vegetation which has been classified as a potential significant natural feature. The construction and operation of a WWTP would require a Notice of Requirement to designate the site for wastewater treatment (and disposal) purposes.

The land appears to be currently used for dairy farming purposes and is part of a larger holding of approximately 170 hectares.

Acquisition of part of the site for the proposed WWTP may render it uneconomic without the purchase of additional land by the owner. In this case, the owner may request a total purchase or expect land to be vested by way of an exchange. It is also likely that the owner will request replacement dairy sheds if they need to be removed as part of the development.

It is unlikely that the owner would willingly content to partial purchase of the land by Council without either receiving other land in exchange or insisting that their entire property be purchased.

Figure 16 Shortlist site 4 overview



3.1.7 Shortlist site 5: Parallel Road / Turkington Road, Kaipaki

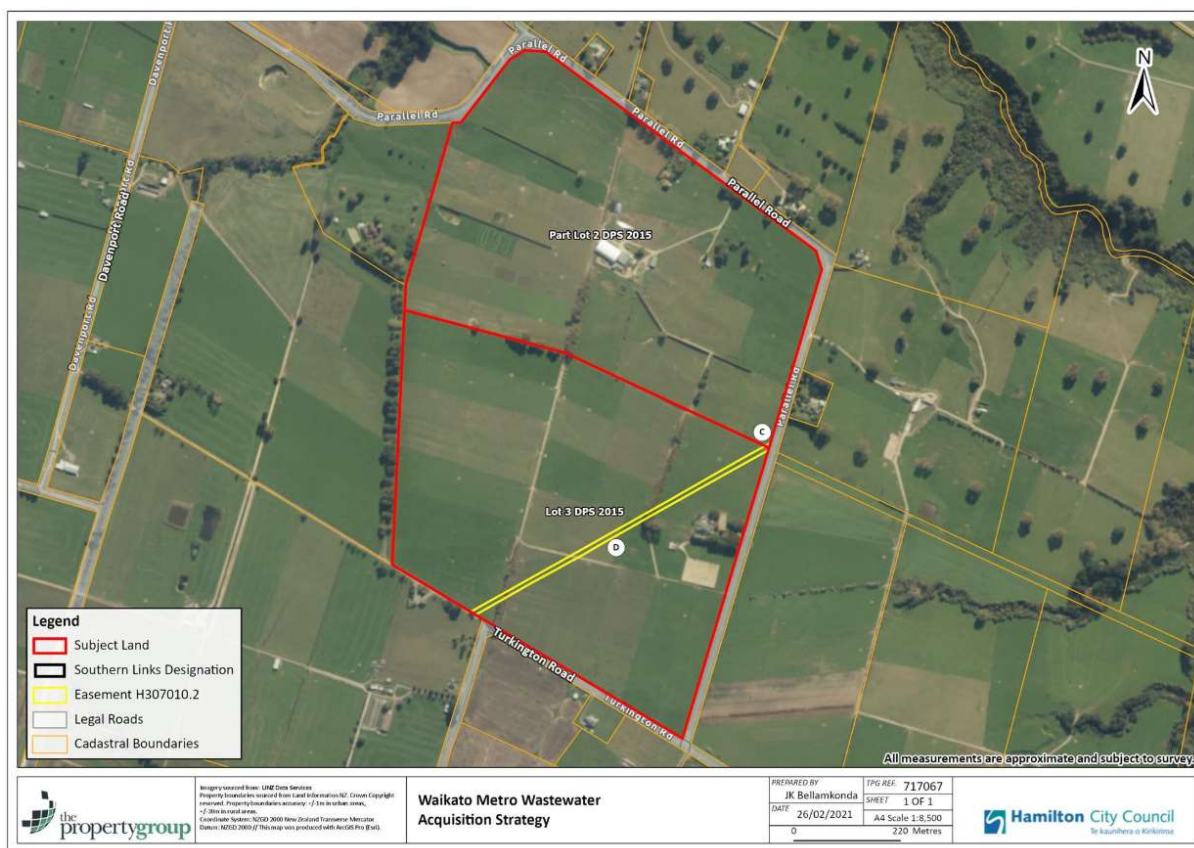
Site 5 is owned by JW Fisher, MM Fisher and KK O'Shea and is located adjacent to Parallel Road / Turkington Road in Kaipaki as shown in Figure 17. The site consists of two lots, been 40 hectares (Lot 2)

and 43 hectares (Lot 3). Both Lots are located within the Rural Zone of the Waipa District. The site is not subject to any District Plan Policy Overlays and does not contain any identified special features.

The construction and operation of a WWTP would require a Notice of Requirement to designate the site for wastewater treatment (and disposal) purposes.

The land appears to be currently used for dairy farming purposes and includes residential dwellings located within each of the properties. The land is part of a larger holding of approximately 273 hectares. Acquisition of part of the site for the proposed WWTP may reduce its economic capacity unless replacement land can be acquired by the owner. In this case, the owner may request a total purchase or expect land to be vested by way of an exchange. It is also likely that the owner will request a replacement dwelling(s) if they need to be removed as part of the development.

Figure 17 Shortlist site 5 overview



3.2 Shortlist site assessment

The shortlist MCA assessment is provided in Table 6 and summarised below.

Site 1: This site has reasonable discharge options, with the opportunity to have industrial reuse with wet industries in Ruakura. A peat-bog margin with very poorly draining soils is present in the northern portion of Site 1. Peat soils are also present to the north and north-east of the site. However, there are large amounts of land to the west and east of the site (> 200 ha) that mainly consist of well-draining ash soils of the upper Hinuera Formation. Slow rate irrigation is likely to be feasible for a portion of the discharge provided that sufficient land can be purchased or alternative arrangements agreed with landowners, and geotechnical investigations confirm land drainage suitability.

There are relatively few residences in close proximity to this site. This option does not significantly impact on the land use characteristics and does not impact any natural features such as streams or any sites of cultural significance. The most concerning issue is the need to convey over long distances and the need to cross both the river and state highway 1 multiple times. This will increase the conveyancing costs.

Sites 2 a, b, and c: These sites were identified by interested parties, and are in an industrialised area, which will not significantly impact the current land use characteristics. The sites do not significantly impact on any waterways or wetlands. Site 2b located at the Riverside golf course would require river crossings, and have potential amenity impacts on the river being located in close proximity.

Sites 2a and 2c are central and minimise river crossings and state highway crossings, meaning conveyance will be cheaper and easier to implement in short terms.

Both sites 2b and 2c have a high number of residential properties within 250m and 500 m bands of the sites. There are fewer residences as close to site 2a. Slow low-rate irrigation is likely to be feasible for a portion of the discharge provided that sufficient land can be purchased (in addition to the WWTP site itself) and geotechnical investigations confirm land drainage suitability. Rapid infiltration beds may be appropriate due to soil conditions for site 2b however investigations would be required to determine suitability.

Site 3 and 4: Both these sites are in a similar location. There are a number of larger properties in this region which could be carried through to a shortlist which could be technically feasible to locate a new plant. This location may have the highest commercial risk in terms of probability of land acquisition through a willing buyer and willing seller as it has not been identified by interested parties. There are relatively few residences in close proximity to these sites.

Site 5: Despite scoring poorly at the longlist assessment stage, site 5 was carried forward to the shortlist stage to provide a geographic spread of shortlist options. Site 5 is located to the east of the study and provides a useful comparison against the other shortlist sites.

Table 6 Shortlist Assessment of Potential WWTP sites

Criteria	Shortlist sites						
CRITERIA	Site 1	Site 2a Airport	Site 2b Golf Course	Site 2c Southern Links	Site 3	Site 4	Site 5
Opportunities nearby (within 7km) for discharge to land	2 Slow rate irrigation is likely to be feasible for a portion of the discharge provided that sufficient land can be acquired, and geotechnical investigations confirm land drainage suitability	2 Slow rate irrigation is likely to be feasible for a portion of the discharge provided that sufficient land can be acquired, and geotechnical investigations confirm land drainage suitability	2 Slow rate irrigation is likely to be feasible for a portion of the discharge provided that sufficient land can be acquired, and geotechnical investigations confirm land drainage suitability. Rapid infiltration beds may be appropriate for site 2b however for investigations would be required to determine suitability	2 Slow rate irrigation is likely to be feasible for a portion of the discharge provided that sufficient land can be acquired, and geotechnical investigations confirm land drainage suitability	2 Slow rate irrigation is likely to be feasible for a portion of the discharge provided that sufficient land can be acquired, and geotechnical investigations confirm land drainage suitability	1 Slow low-rate irrigation is likely to be feasible for a portion of the discharge, however land discharge options are constrained by poorly draining peat soils to the west and south of the site	2 Given the high level of very-poorly draining peat soils in the vicinity of the site, slow rate irrigation options are likely to be limited, however there is potential for rapid infiltration beds onsite. Further geotechnical investigations will be required to confirm suitability of land drainage characteristics
Wetland restoration opportunities nearby (within ~5km) for discharge to wetlands	1 Several Waikato River Authority restoration projects in the Mangaonua catchment. Collaboration with iwi and a site-specific Environmental Effects Assessment required to confirm discharge opportunity to wetlands	2 A potential wetland restoration area is present on the edge of Rukuhia Swamp. Field ecology and engineering investigations would be required to confirm	2 A potential wetland restoration area is present on the edge of Rukuhia Swamp. Field ecology and engineering investigations would be required to confirm	2 A potential wetland restoration area is present on the edge of Rukuhia Swamp. Field ecology and engineering investigations would be required to confirm	2 A potential wetland restoration area is present on the edge of Rukuhia Swamp. Field ecology and engineering investigations would be required to confirm	2 A potential wetland restoration area is present on the edge of Rukuhia Swamp. Field ecology and engineering investigations would be required to confirm	0 No obvious wetland restoration sites are present however further investigation is required
Opportunities nearby (within ~5km) for potable or industrial reuse	2 Potential for indirect potable reuse	2 Potential for indirect potable reuse. The site is in proximity to existing and proposed industrial facilities near Hamilton Airport	2 Potential for indirect potable reuse. The site is in proximity to existing and proposed industrial facilities near Hamilton Airport. Slightly worse than 2 & 2c in that a river crossing is required	2 Potential for indirect potable reuse. The site is in proximity to existing and proposed industrial facilities near Hamilton Airport	2 Potential for indirect potable reuse. The site is in proximity to existing and proposed industrial facilities near Hamilton Airport	2 Potential for indirect potable reuse. The site is in proximity to existing and proposed industrial facilities near Hamilton Airport	1 Limited potential for indirect potable reuse given the distance from wet industry (6+ km)

Criteria	Shortlist sites						
CRITERIA	Site 1	Site 2a Airport	Site 2b Golf Course	Site 2c Southern Links	Site 3	Site 4	Site 5
Liquefaction risk at each site and access to utilities	1 Located in WRC most hazardous 'A' liquefaction zone, peat swamp. 11kV network and Waikato Water Supply also through site	1 Located in WRC quite hazardous 'B' liquefaction zone. On ends of 2x 11kV circuits. Currently unserviced needs 400m water pipe extension from Waipa network	-1 Located in WRC most hazardous 'A' liquefaction zone, Sandy river terrace. On end of several 11kV circuits. Waikato water network to edge of site. Needs extension into site	1 Located in WRC quite hazardous 'B' liquefaction zone. 2x 11kV circuits pass site. One double ended. Currently unserviced needs 3.3-4.5km water pipe extension from Airport or Peacocke	-2 Located in WRC most hazardous 'A' liquefaction zone, peat swamp west of Ohaupo/Rukuhia. End of minor 11kV feeder. Currently unserviced needs c 400m extension from Waipa Network	-1 Located in WRC most hazardous 'A' liquefaction zone, peat swamp west of Ohaupo/Rukuhia. On ends of 2 x 11kV circuits. Waipa network to edge of site, needs extension into site	-1 Located in WRC quite hazardous 'B' liquefaction zone. End of minor 11kV feeder. End of Waipa water network enters site
Distance to contributing catchments (raw WW conveyance) - this includes cost implications, consentability, maintenance and operations.	-2 Long pipelines increase construction risk. Peacockes pipeline constructed through built-up areas. Multiple river and SH crossings. Long treated water discharge pipeline through urban area required	0 One river and SH1 crossings required	-1 Longer pipelines from Peacockes. Two river and one x SH1 crossings required	0 One river and SH1 crossings required	-1 Longer pipelines from Peacockes and Matangi. One river and SH1 crossings required. Long treated water discharge pipeline required	-1 Longer pipelines from Peacockes and Matangi. One river and SH1 crossings required. Long treated water discharge pipeline required	-1 Longer pipelines from Airport, Peacockes, Ohaupo and Matangi. One river and SH1 crossings required
Potential for impacts to sites of cultural significance	0 Low risk of impact on known archaeological sites	0 Low risk of impact on known archaeological sites	-2 Higher potential risk of impacting on known archaeological sites, investigation will be required for sites which are within the boundary	0 Low risk of impact on known archaeological sites	0 Low risk of impact on known archaeological sites	0 Low risk of impact on known archaeological sites	0 Low risk of impact on known archaeological sites
Impacts on natural and physical qualities and characteristics of the area	2 A landscape that is in transition from rural to urban, with a mix of rural and urban activities (e.g., a cafe), power pylons visible in midfield view and state highway development	3 Industrial and airport location, so a WWTP would not have a significant adverse effect on the amenity values of this locality	-2 Currently a golf course. Southern Links designation bisects the middle of it, so amenity values likely to change. However, generally high amenity being located next to the river, surrounded by bush	-1 A landscape that is in transition from rural to urban, with a mix of rural and urban activities (Rukuhia village – houses and industrial uses), adjacent to a state highway, and Southern Links Designation	-1 A horticulture / pastoral landscape, so a WWTP may have an impact on the amenity values of this locality	-1 A horticulture / pastoral landscape, so a WWTP may have an impact on the amenity values of this locality	-2 A pastoral landscape, many properties with hedges. A WWTP is this location may have a significant impact on the amenity values of this locality

Criteria	Shortlist sites						
CRITERIA	Site 1	Site 2a Airport	Site 2b Golf Course	Site 2c Southern Links	Site 3	Site 4	Site 5
Impacts on the natural character of wetlands, rivers and lakes and their margins	2 Site only appears to have farm drains with comparatively low natural character. Separation from this drain should be achievable	2 Flat land with farm drains located throughout, in particular the northern corner. Low natural character, appears to be sufficient land well clear of this stream shown	-3 Drain/ watercourse located to the eastern end, with riparian vegetation or native bush as a buffer. Few ponds located throughout the site, and Waikato River along the western edge	1 Farms drains located throughout, with stands of native trees	1 Streams with forested and/or riparian planting located from western and eastern extent of site which drain eastward to a confluence inside the site. Size of site appears sufficient for a WWTP to have separation	0 Streams bisect site 4 through northern portion of the site with established riparian margin. It is a very large site	1 Only minor farm drains appear to be present. There appears to be sufficient land well clear of streams shown on the maps to locate a WWTP
Impacts on neighbouring houses and other activities potentially sensitive to noise from traffic movements and risks of odours from the WWTP	-1 Approximately 20 houses within 250m from the edge of the site. 20 houses between 251-500m from the edge of the site.	-1 1 house within the site and approximately 11 houses within 250 from the edge of the site. 19 houses between 251m and 500m from the edge of the site	-2 30 houses within 250 m of the edge of the site. 70 houses between 251–500 m	-2 Approximately 27 houses within 250 m of the edge of the site. Approximately 51 houses between 251-500m	1 7 houses 250m from the edge of the site. 21 houses between 250m and 500m from the edge of the site	-1 16 houses within 250m from the edge of the site. 17 houses between 251 and 500m from the edge of the site	1 3 houses within the site and 13 250m from the edge of the site. 2 houses between 251 and 500m from the edge of the site
What are the access opportunities? What are the potential traffic impacts?	3 Close expressway, good access to / from City	3 Surrounded by local roads & SH's and future Central links	3 Surrounded by local roads & SH's and future Central links	3 Surrounded by local roads & SH's and future Central links	3 Close to SH3 & 21	2 Local roads close to SH3 & 21	1 Small local roads away from SH
What is the length and complexity of additional conveyance Infrastructure?	-3 34km trunk conveyance pipeline and equivalent Pump Stations and Pipe Bridges	2 21km trunk conveyance pipeline and equivalent Pump Stations and Pipe Bridges	1 24km trunk conveyance pipeline and equivalent Pump Stations and Pipe Bridges	2 22km trunk conveyance pipeline and equivalent Pump Stations and Pipe Bridges	0 25km trunk conveyance pipeline and equivalent Pump Stations and Pipe Bridges	1 24km trunk conveyance pipeline and equivalent Pump Stations and Pipe Bridges	0 25km trunk conveyance pipeline and equivalent Pump Stations and Pipe Bridges

3.3 Summary of results

The following is a summary of the results from the shortlist site assessment.

Site 1: The site is generally suitable for a WWTP in terms of the size of the site, surrounding natural landscape and the potential impacts on natural features. However, the site location is considered to be poor due to the distance and the associated capital and operational costs for conveyance that would be required to enable the site to service short, medium and long term catchments.

This site is not recommended for further consideration.

Site 2a: This site has good attributes for both natural features as well as location. This site is within a larger precinct that is being considered for rezoning for industrial and commercial activity.

This site is recommended for further consideration.

Site 2b: This site has some good attributes for both natural features as well as location. However some of the features such as potential heritage and cultural sites, liquefaction risk, proximity to the river and wetlands and other natural features impact the suitability of this site for a WWTP.

This site is not recommended for further consideration.

Site 2c: This site has good attributes for both natural features as well as location. There are some adjacent land uses and residences which will need to be considered in the design and location of a WWTP within the site.

This site is recommended for further consideration.

Site 3: This site has good attributes for both natural features as well as location. This site is within the most hazardous liquefaction zone and will need additional power infrastructure to connect to the network.

This site is recommended for further consideration, specifically to understand the additional costs required to build within the liquefaction area and additional power connection costs.

Site 4: This site has some good natural features but will likely require additional land for land discharge during Stage 1 which will add costs for this option. This option has longer conveyance than other options and therefore will have higher operational and capital costs.

This site is not recommended for further consideration.

Site 5: This site has some good natural features but is located within an unsuitable landscape, does not have wetland restoration opportunities, and has limited opportunities for water re-use. This option has poor roading connections (mainly local roads) and longer conveyance than other options and therefore will have higher operational and capital costs.

This site is not recommended for further consideration.

3.4 Next steps

It is recommended that further investigation is undertaken to assess the suitability of Sites 2a, 2c and 3. The following actions have been identified as next steps:

1. Undertake further investigations to determine the areas of land that are potentially suitable for land discharge for stage 1. This may include undertaking further desktop GIS analysis, followed by landowner consultation and site-specific investigations. At a high level, consideration should be given to:
 - a. How the particular site could be Master Planned to make provision for future stages of development and adequate buffers.
 - b. The topographical nature of each site works with or against a logical development of the plant and whether it would minimise energy consumption on the site.
2. Undertake further investigations to determine areas of land potentially suitable for stage 2 and 3 river discharge, through land contact or similar. This may include undertaking further desktop GIS analysis, followed by landowner consultation, site specific investigations and preliminary geotechnical investigations.

Specific queries to utilities providers may be necessary regarding the nature of system upgrades required to service site with Water and Power. Initial site-specific investigations could include hydrogeology (groundwater), ecological and mātauranga Māori assessments. These would feed into the process for the assessment of alternatives for the stage 2/3 discharge locations.

3. Site specific environmental investigations for preferred sites. This may include ecological assessments for bat habitat and natural wetlands (amongst others), archaeological assessments, and site-specific odour assessment for sensitive receptors. These initial site-specific investigations would feed into the assessment of the alternatives process for the preferred WWTP sites.
4. Works towards securing the land required for the WWTP and discharge system through a designation process. This would be undertaken prior to any further changing in zoning through plan change processes.

Appendix A TPG Property Report

Appendix 1 – Property Reports

Reference: Property 1

Owner	Ruakura Limited (subsidiary of Tainui Group Holdings Limited)
Property address/location	Ruakura Road, Hamilton
Title reference	Part of the land comprised within RT SA53C/665
Area and legal description	43.07 ha legally described as being part Lot 8 DPS 66853 shown as section 8 on SO 483544 and shown outlined red on the attached plan.
Tenure/status	Freehold

Part IV A Conservation Act 1987

This part of the Act reserves from disposition by the Crown a strip of land abutting the landward margin of certain water boundaries.

There are no water boundaries within this property that we are aware of, so this encumbrance has no relevance.

Encumbrances and memorials (registered interests)

Section 11 of the Crown Minerals Act 1991

This provision has the effect of reserving, in favour of the Crown, every mineral existing in its natural condition in the land.

7407649.1 Encumbrance to the Waikato District Council

This relates to the construction and operation of a stock underpass under a Waikato District Council local road to serve the land held in RT SA53C/665. It is not clear whether the underpass serves the subject property, and this will need to be investigated further to establish what impact, if any, it has in the event this property is identified as being a preferred candidate.

9332419.2 Caveat by WEL Networks Limited

Registered to protect an equitable interest in an agreement between the owner and WEL Networks Limited (WEL) dated 31 March 2005 and varied by subsequent agreement dated 7 November 2006. The agreement will need to be located and reviewed to establish whether WEL's interest relates to the subject property, and what effect it has on it, if any.

Land Covenant in Easement Instrument 10301397.13

"No complaints" covenant benefitting the subject land.

10402846.1 Notice pursuant to section 18 Public Works Act 1981 (PWA)

Notice served by Waka Kotahi NZ Transport Agency as a first step in initiating the compulsory acquisition process over part of the land for the Waikato Expressway.

The subject land is located east of the Waikato Expressway and is not affected.

Subject to an electricity and telecommunications easement (in gross) in favour of Transpower Limited created by Easement Instrument 10487873.1

Transpower electricity and telecommunications easement over areas B, C, D, F, G, I, J, M, N, P on DP 496467 shown in yellow on the attached plan.

Areas part J, M, N, P and part D run parallel to Ruakura Road and affect approximately 20% of the property where Ruakura Road and the Waikato Expressway intersect.

Subject to a right of way (in gross) in favour of Transpower Limited created by Easement Instrument 10489705.2

Transpower right of way easement over areas L, M, O and P on DP 496467, which runs parallel to the Waikato Expressway and provides access to the areas of part J, M, N, P and part D, shown hatched black on the attached plan.

11893367.1 Compensation Certificate pursuant to section 19 PWA by Her Majesty the Queen

Relates to the purchase of land west of the subject property for the Waikato Expressway.

The Waikato District Plan is currently under review, therefore, both the Operative District Plan (ODP) and the Proposed District Plan (PDP) are relevant. Many decisions of the PDP have not been made and therefore most rules of the PDP have no legal effect at this time. However, the PDP rules and the submissions that have been made on the PDP shall be considered in relation to this site.

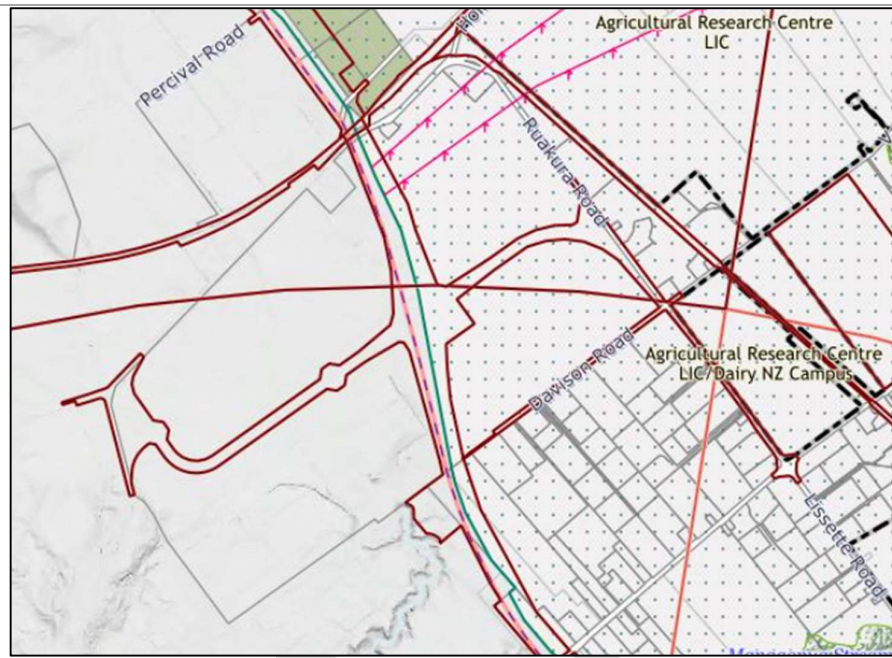
Under the Operative District Plan (ODP) the site is located within the Rural Zone. The zoning map confirms that there are transmission lines that run through the property. Designation J117 surrounds the site (SH 1) which is currently under construction.

There are no notable special features or significant sites identified within the site.

ODP Rule 25.33 wastewater treatment plant – Discretionary activity.



Under the PDP the site is in the Rural Zoning of the site is retained.



PDP Rule 22.1.5 – Any activity not provided for as a Permitted, Restricted Discretionary, or Discretionary activity – Non-complying activity.

It is noted that the site is subject to a submission that has been lodged against the Waikato District Plan (Stage 1) which requests the rezoning of the site to a new 'Ruakura Industrial Zone' (SUB 341). The submission has been lodged by Tainui Group Holdings Limited. At this time Council have not yet released their s42A report, therefore, the opinion of Council regarding this rezoning request is currently unknown. The s42A reports are expected to be released by Council 16 April 2021, hearings will be scheduled following the release of this report.

Property description and land use

Vacant land that appears to be held for grazing purposes. It is possible that the property is subject to an unregistered grazing licence(s) to a third party(ies), which would need to be established.

Statutory constraints

There are no statutory constraints that we are aware of other than those already identified.

Landowner issues/impact of acquisition

The subject property has been severed from the balance of the property by proposed realignment of Ruakura Road and the Waikato Expressway, so the impact on the balance of the property appears to be limited.

Land value estimate

Good quality dairy land within with Waikato district typically sells for \$4m² - \$8m² dependent upon factors such as soil quality/productivity and topography.

It can be expected that land zoned for rural purposes located within close proximity to the Hamilton City boundary will attract a premium to reflect longer term development potential. On this basis, a range of \$10m² - \$15m² could be expected for the subject property.

However as noted, a submission has been lodged against the Waikato District Plan to rezone the site to Ruakura Industrial Zone, a decision which could significantly influence the value of the land.

Unfortunately, a decision on whether Council is prepared to support this rezoning is unlikely to be made for some time, with the earliest indication expected when they release their s42A report on 16 April 2021. Even then, the decision will be subject to hearings and possible appeals.

There is therefore considerable uncertainty over the current value of the land.

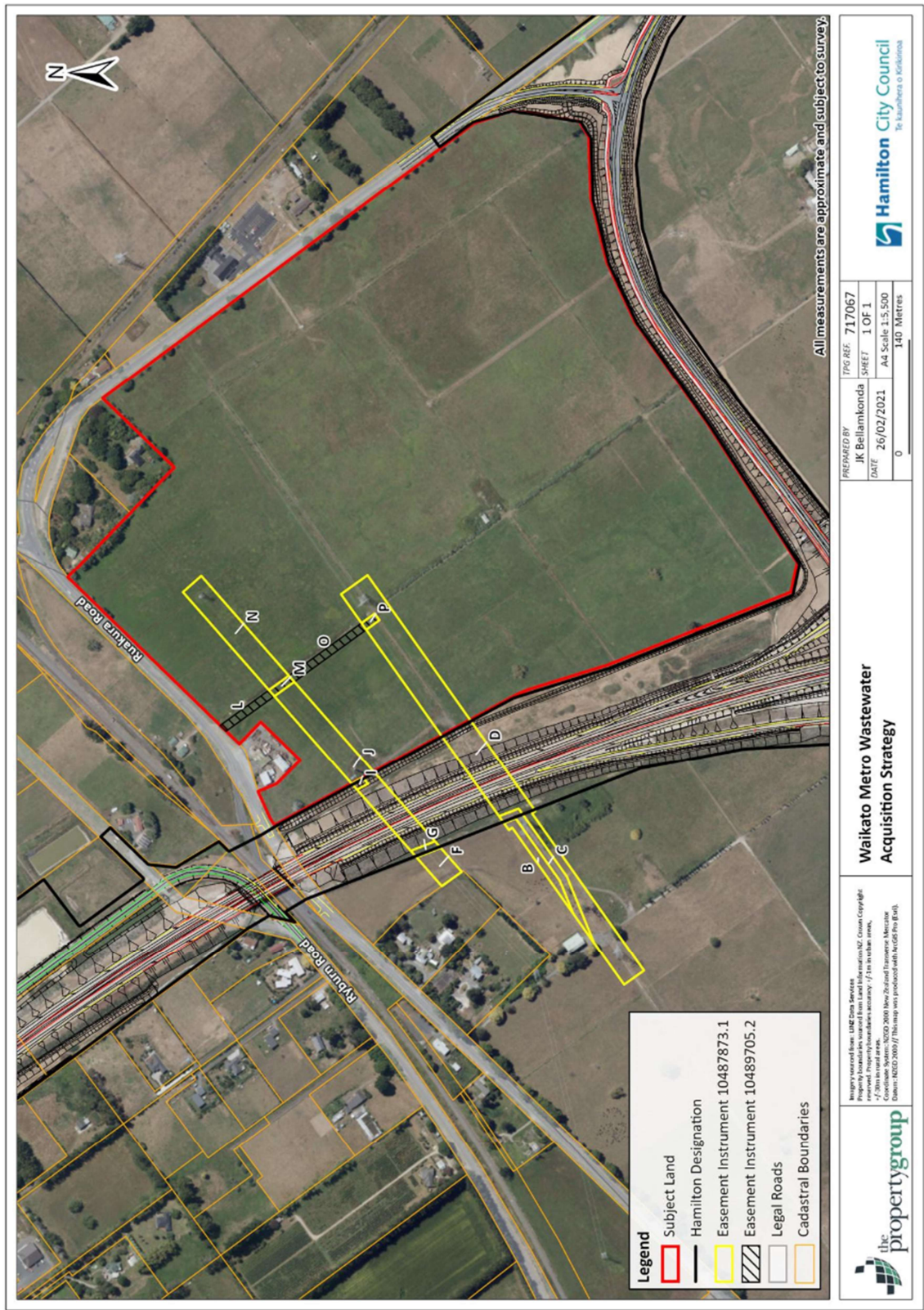
A favourable decision could result in the value of the land being increased to circa \$50m²-\$100m², which would undoubtedly push the value beyond the land purchase budget for the project.

**Lease cost estimate
(annual)**

5-10% of land value.

Summary

1. The land would need to be acquired subject to the existing memorials, so Council would need to be satisfied that they do not have a detrimental impact on their ability to construct and operate the proposed wastewater facility. The easements in favour of WEL and Transpower Limited in particular, will need to be reviewed for location and setback requirements. It is possible that some of the lines may have statutory protection under section 22 Electricity Act 1992.
 2. The construction and operation of a wastewater treatment plant would appear to be a discretionary activity under the Waikato District Plan, which may simplify the consenting process.
 3. We understand the vendor may be a willing participant in the process, which would avoid the need for purchase underpinned by Council's compulsory acquisition powers.
 4. Council's decision whether to rezone the land beyond the existing zone will have a significant effect on whether this property remains an economically viable proposition.
-



Reference: Property 3

Owner	Waikato Regional Airport Limited (WRAL)
Property address/location	Frontage to Narrows Road, Middle Road and Raynes Road, Rukuhia
Title reference	CFR 30510
Area and legal description	<p>52ha (subject to survey) comprising part Lot 1 DP 306726 shown outlined in red on the attached plan.</p> <p>We understand that only part of the owner's property is required and a specific area for the proposed wastewater treatment plant has not been identified.</p>
Tenure/status	Freehold
Encumbrances and memorials (registered interests)	<p>B537026.1 Gazette Notice declaring the adjoining State Highway 21 to be a limited access road</p> <p>Not applicable as the subject property no longer adjoins a state highway.</p> <p>B632968.1 Notice pursuant to Section 91 Transit New Zealand Act 1989</p> <p>The property has an authorised crossing place approved by (formerly) Transit New Zealand, although the property no longer adjoins a state highway.</p> <p>B650862.2 Consent notice pursuant to section 221(1) Resource Management Act 1991</p> <p>Not applicable. The consent requires the owner to obtain a resource consent prior to any development of the site for residential purposes as the property is located within 500m of a mineral extraction site.</p> <p>Fencing Covenant contained in Transfer 5489536.4</p> <p>Not applicable as this has subsequently lapsed and has no effect.</p> <p>Land Covenant contained in Transfer 5489536.4</p> <p>"No complaints covenant" over the adjoining land in favour of the subject land. Note that this has been subsequently cancelled as set out below.</p>

Land Covenant contained in Transfer 5698820.4

“No complaints covenant” over the adjoining land in favour of the subject land. Note that this is limited to purposes associated with the airport and has been subsequently cancelled as set out below.

Fencing Covenant contained in Transfer 5698820.4

Not applicable as this has lapsed and has no effect.

Subject to Sections 241(2) and 242(1) Resource Management Act

Not applicable – prohibits the separate sale of the two lots held within the subject title.

10263282.1 Compensation certificate pursuant to section 19 Public Works Act 1981

Not applicable. Acquisition by the Crown of approximately 4.26 ha of land from the northern tip of the title for the Southern Links road realignment.

113669927.1 Court order pursuant to section 317 Property Law Act 2007 extinguishing the land covenant created by Transfer 5489536.4

This has the effect of cancelling the land covenant referred to above.

11369927.1 Court Order pursuant to section 317 Property Law Act 2007 extinguishing the land covenant created by Transfer 5698820.4

This has the effect of cancelling the land covenant referred to above.

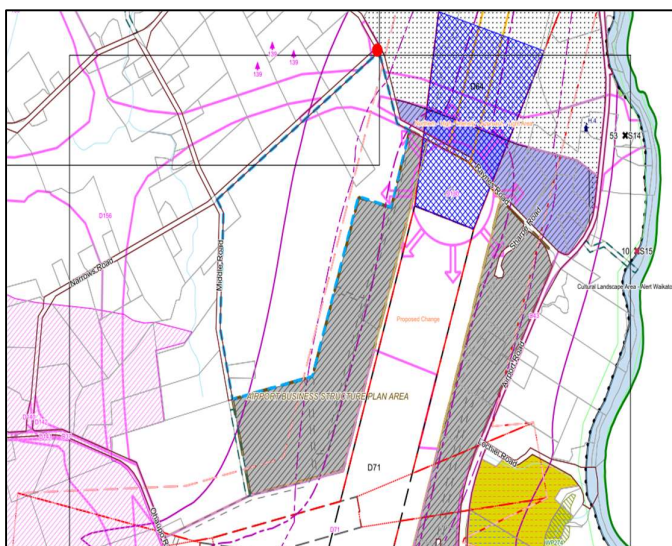
The site is located within the Rural Zone of the Waipa District and is partially located within the Airport Business Zone. The site is subject to the following overlays:

- Airport (identified by the blue dashed line)
- Airport business structure plan area (identified by the brown dashed line)
- Outer control boundary (purple line).

Zoning

The site is identified in Appendix S1 of the Waipa District Plan as a future growth cell of the Hamilton airport earmarked for development beyond 2035.

To construct a wastewater treatment plant within the Rural Zone, a non-complying resource consent is required under Rule 4.4.1.5 (b) – All activities not listed under another activity status.



Property description and land use

Vacant land that appears to be held for grazing purposes. It is possible that the property is subject to an unregistered grazing licence(s) to a third party(ies), which would need to be established.

Statutory constraints

There are no statutory constraints that we are aware of other than those already identified.

Landowner issues/impact of acquisition

We are aware that the owners have development aspirations for the site and intend to lodge a private plan change application to upzone the land to industrial. Any approval by Council would be subject to the owner providing all necessary wastewater reticulation and services necessary to service the site.

Construction of the wastewater plant within the owner's property may be advantageous to the owner and enable them to save considerable capital developing their own infrastructure.

It is also possible that construction of the project may lead to the owners being able to develop their land ahead of time.

Land value estimate

Value will be largely dependent upon the location of the proposed site, the degree to which the proposed work benefits the balance of the property and the owner's success in securing a private plan change.

Good quality dairy land within with Waikato district typically sells for \$4m² - \$8m² dependent upon factors such as soil quality/productivity and topography.

However as noted, WRAL intends to lodge a private plan change to rezone the land for industrial purposes, a decision which could significantly influence the value of the land if successful.

Unfortunately, a decision from Council is unlikely to be made for some time and will follow a public notification and submissions process. Even then, a decision could be subject to hearings and possible appeals.

There is therefore considerable uncertainty over the current value of the land.

A favourable decision could result in the value of the land being increased to circa \$50m, which would undoubtedly push the value beyond the land purchase budget for the project.

Summary

1. Construction of a wastewater treatment plant within the Rural Zone would require a non-complying resource consent.
 2. The degree to which the proposed work benefits the balance of the owner's land requires further clarification and consultation with the owner.
 3. Land purchase costs will vary significantly depending on the success or otherwise of the private plan change process, the outcome of which may result in land purchase being uneconomic.
 4. WRAL's shareholders include several of the participating councils within the Southern Metro Area who may be prepared to support the use of the site for the project.
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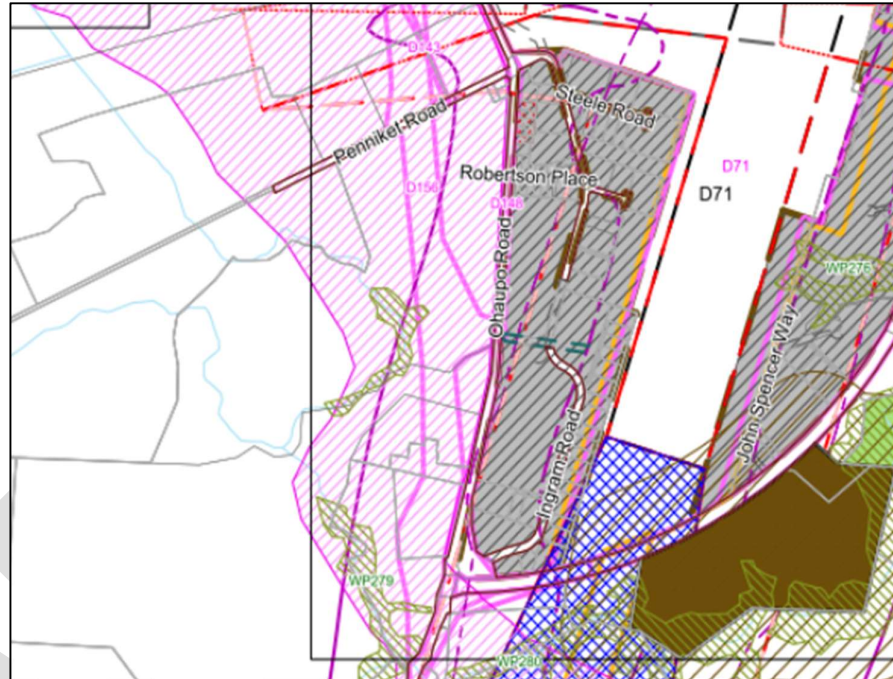


Reference: Property 4

Owner	Rukuhia Farm Limited (see further note below under Summary)
Property address/location	Penniket Road, Rukuhia
Title reference	RT 702354
Area and legal description	Approximately 37.4 ha (subject to survey) legally described as being part Lot 1 DP 488969 shown outlined in red on the attached plan.
Tenure/status	Freehold
Encumbrances and memorials (registered interests)	<p>S36501 Compensation certificate by the Minister of Works</p> <p>Relates to land purchased from the historical title and is now redundant.</p> <p>S644906 Gazette notice declaring State Highway 3 (SH 3) to be a limited access road</p> <p>We note that the property also has frontage to Pennekit Road, which is a local road.</p>
Zoning	<p>The property is located within the Waipa District and is situated within the Rural Zone. The site is partially subject to Designation 156 for the purpose of the Waka Kotahi Southern Links network project (identified within the bold pink boundary lines).</p> <p>The site is also situated within the airport outer control boundary (dashed pink lines) which triggers District Plan rules relating to noise sensitive activities.</p> <p>The site contains an area of vegetation which has been classified as a 'potential significant natural feature' and this same area is subject to the policy overlay for significant natural features (green diagonal lines). There are building setbacks required from significant natural features and a resource consent is required for any removal of this vegetation.</p>

A large area of the site is subject to the landscape and natural character areas, specifically being the view shaft/SH 3 scenic corridor (pink diagonal lines). Section 25 of the District Plan relates to landscapes and viewshafts and there are policies and objectives contained within this section that seek to maintain and protect viewshafts. Any building greater than 20 m² in area requires a restricted discretionary resource consent within the SH 3 Scenic Corridor.

To construct a wastewater treatment plant within the Rural Zone a non-complying resource consent is required under Rule 4.4.1.5 (b) – All activities not listed under another activity status.



**Property description
and land use**

Used by the owner for dairy farming purposes. The land appears largely flat in contour but is bisected by a gully network along its western, eastern and southern boundaries that may provide some construction and operational challenges.

Statutory constraints

None that we are aware of other than the potential conflict with Southern Links.

**Landowner
issues/impact of
acquisition**

The property is part of a larger holding used by the owner as a functioning dairy farm. Acquisition of part for either Southern Links or for the proposed wastewater treatment facility is likely to render it uneconomic without the purchase of additional land by the owner.

In cases such as this, the landowner may either request a total purchase or expect land to be vested by way of exchange.

Land value estimate

Dairy land within with Waikato district typically sells for \$4m² - \$8m² dependent upon factors such as soil quality/productivity and topography.

It can be expected that land zoned for rural purposes located within close proximity to the Southern Links designation and Hamilton Airport will attract a premium to reflect longer term development potential. On this basis, a range of up to \$8m² - \$10m² could be expected for the subject property providing the following value estimates.

Required land only (37.4ha): \$3 - \$3.75M

Total purchase (130 ha): \$10 - \$13M

Summary

1. Construction of a wastewater treatment plant within the Rural Zone would require a non-complying resource consent under Rule 4.4.1.5 (b).
 2. The site is partially subject to Designation 156 for the purpose of the Waka Kotahi Southern Links network project, which requires approximately 18.7 ha resulting in a net area for the balance title of 37.4ha.
 3. We are advised that the subject property, together with several adjoining properties also owned by the owner, is part of a sale and purchase agreement that settles circa mid-2021.
 4. We are advised that the purchaser has a long-term desire to develop the land and other land within the vicinity beyond its current use. We therefore anticipate that the purchaser may be interested in furthering discussions to explore whether there are mutually beneficial advantages in developing the wastewater treatment facility within the land.
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Reference: Property 5

Owner	Kaipaki Dairies Limited
Property address/location	Kaipaki Road, Kaipaki
Title reference	RT 533609
Area and legal description	63.04 ha legally described as being Lot 2 DP 435769
Tenure/status	Freehold
Encumbrances and memorials (registered interests)	<p>9792293.4 Consent notice pursuant to section 221 Resource Management Act 1991</p> <p>Prohibits further subdivision of the subject land.</p> <p>Subject to a right to drain sewage over part marked A on DP 435769 created by easement instrument 9792293.5.</p> <p>Provides the adjoining owner with the ability to drain sewage over a small area of the property adjacent the house site and close to Kaipaki Road shown marked A on the attached plan.</p> <p>Appurtenant hereto is a right convey electricity created by easement instrument 9792293.5</p> <p>Provides the owner of the subject site to convey electricity over the adjoining property referred to above shown marked B on the attached plan.</p> <p>Both easements are subject to section 243(a) Resource Management Act 1991</p> <p>Restricts an owner's ability to surrender easements created as a condition of subdivision.</p>
Zoning	The property is located within the Waipa District and is situated within the Rural Zone.

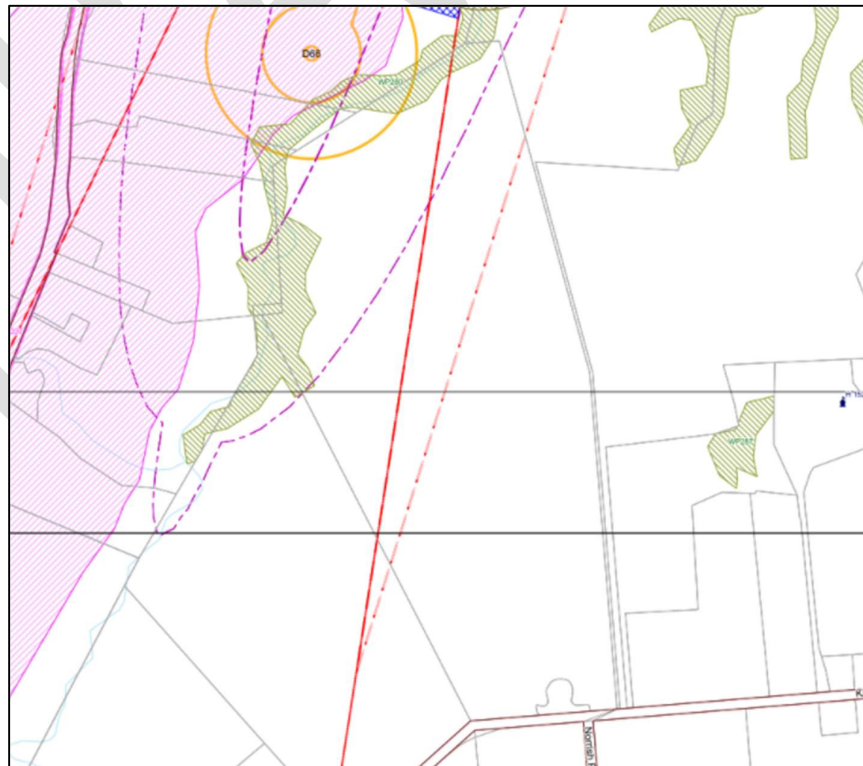
The site is subject to several airport related overlays, including the airport noise boundary (bold dashed pink line), night noise boundary (dashed pink line), outer control boundary (bold pink line), main strip approach (red line), transitional slope (red dashed line), and horizontal surface (light red dashed line).

A small portion of the site (northern boundary) is situated within Airport Designation Extra D66. The purpose of this designation is described in the District Plan as being required for Airport Runway Approach Lights, VOR and ancillary facilities, and structures.

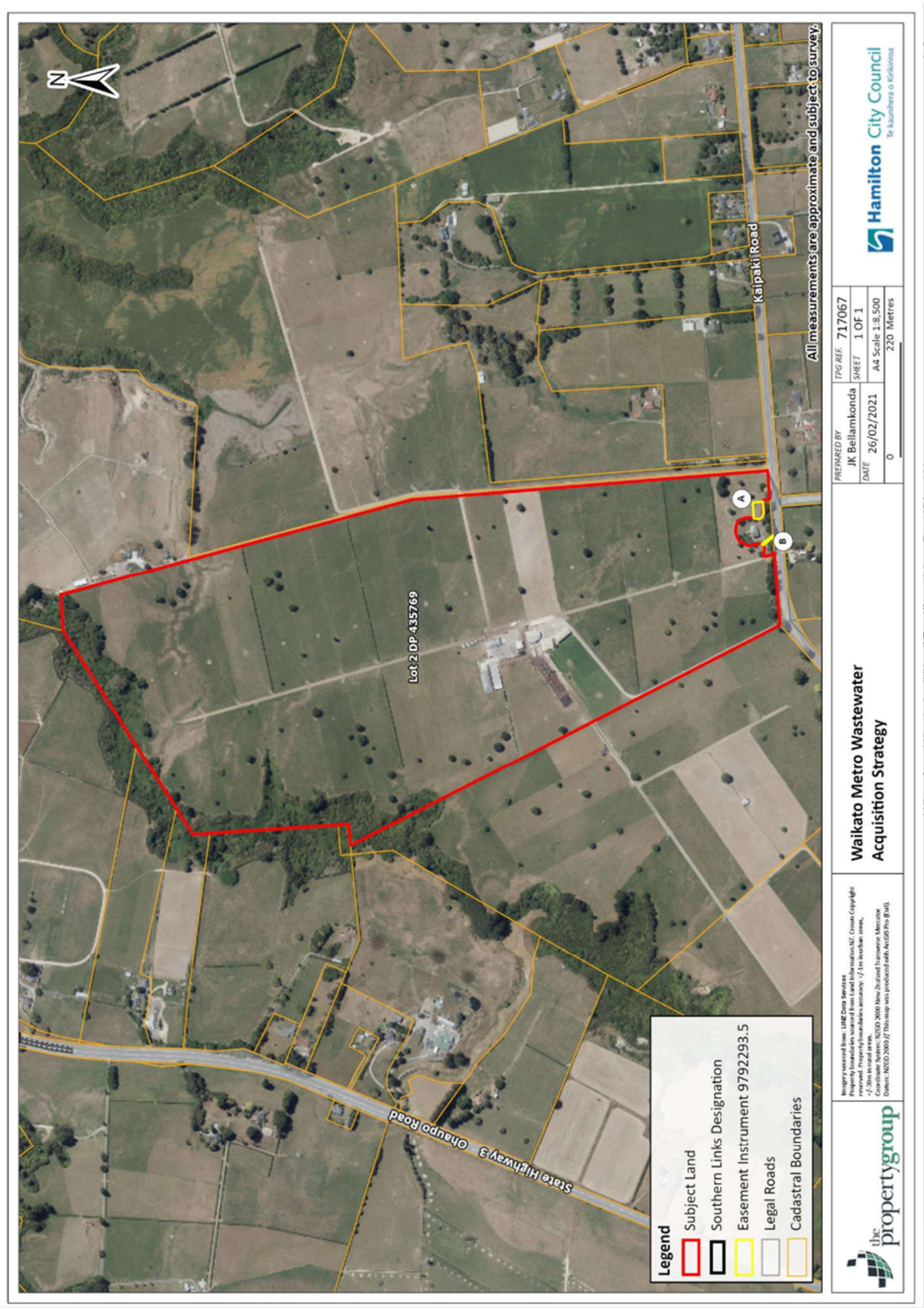
There are height limitations for constructing buildings within the airport policy overlays and noise related rules for the development of noise sensitive activities.

An area of vegetation identified as being a significant natural feature surrounds the northern most boundary of the site. There are building setbacks required for development within the vicinity of significant natural features (10m) and removal of vegetation within an area identified as a significant natural feature requires a resource consent.

To construct a wastewater treatment plant within the Rural Zone would require a non-complying resource consent under Rule 4.4.1.5 (b) – All activities not listed under another activity status.



Property description and land use	<p>Appears to be used by the owner for dairy farming purposes. The land is largely flat in contour but there appears to be several significant improvements located towards the centre of the property.</p> <p>The land is farmed in association with a number of adjoining titles, also owned by the owner and comprising a total of approximately 170ha.</p>
Statutory constraints	None that we are aware of.
Landowner issues/impact of acquisition	<p>The property is part of a larger holding used by the owner as a functioning dairy farm. Acquisition of part for the proposed wastewater treatment facility may render it uneconomic without the purchase of additional land by the owner.</p> <p>In cases such as this, the landowner may either request a total purchase or expect land to be vested by way of exchange.</p> <p>It is also likely that the owner will request replacement dairy sheds if they need to be removed as part of the development.</p>
Land value estimate	<p>Rating Valuation (08/2019) of identified title only, including improvements valued at \$570,000.00, at \$3.8M.</p> <p>Dairy land within with Waikato district typically sells for \$4m² - \$8m² dependent upon factors such as soil quality/productivity and topography.</p> <ol style="list-style-type: none"> 1. Estimate for the purchase of entire record of title (63 ha): \$5 - \$6M. 2. Purchase of required land only (40h a): \$3 - \$4M. 3. Total purchase of all owner's landholdings (170ha): \$13 - \$15M.
Summary	<ol style="list-style-type: none"> 1. An area of vegetation identified as being a significant natural feature surrounds the northern most boundary of the site. 2. Construction of a wastewater treatment plant within the Rural Zone would require a non-complying resource consent application under Rule 4.4.1.5(b). 3. It is unlikely that the owner would willingly consent to the partial purchase of the land by Council without either receiving other land in exchange or insisting that their entire property be purchased.



Reference: Property 8

Owner	JW Fisher, MM Fisher and JJ O'Shea
Property address/location	Parallel Road/Turkington Road, Kaipaki
Title reference	1. SA1092/185. 2. SA1092/187.
Area legal description	1. 40.47 ha legally described as being Lot 2 DPS 2015; and, 2. 43.18 ha legally described as being Lot 3 DPS 2015, both shown outlined in red on the attached plan.
Tenure/status	Freehold
Encumbrances and memorials (registered interests)	<p><u>SA1092/185</u></p> <p>S465898 proclamation taking part for road</p> <p>Relates to a historic purchase of approximately 1,725 m² of land for road.</p> <p>Appurtenant hereto are water rights created by Transfer H307010.2</p> <p>Water supply easement in favour of the subject land to draw water from the Mangawhero Stream.</p> <p>Subject to water rights over part marked C on DPS 24494 created by Transfer H307010.2</p> <p>A small portion of the property is subject to a water supply easement in favour of several adjacent properties that draws water from the Mangawhero Stream shown outlined in yellow on the attached plan.</p> <p>It is not clear whether the pipe is operable.</p> <p><u>SA1092/187</u></p> <p>Appurtenant hereto is a right of way created by Transfer 43624</p> <p>Drainage reserve in favour of the subject land over several adjoining parcels.</p>

Appurtenant hereto are water rights created by Transfer H307010.2

Water supply easement in favour of the subject land to draw water from the Mangawhero Stream.

Subject to water rights over part marked D on DPS 24494 created by Transfer H307010.2

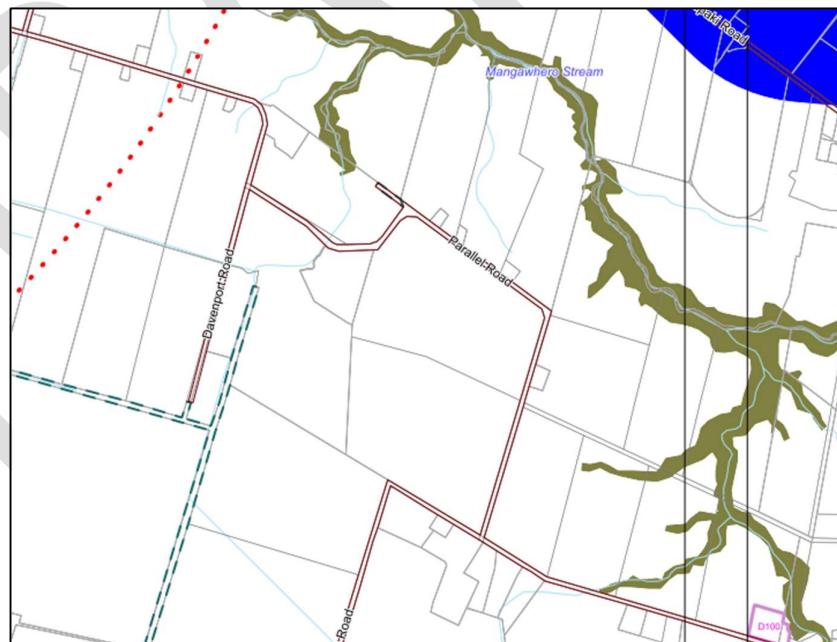
The property is subject to a water supply easement in favour of several adjacent properties that draws water from the Mangawhero Stream, but cuts through the site diagonally from the north-east to the south-west shown outlined in yellow on the attached plan.

It is not clear whether the pipe is operable.

The property is located within the Waipa District and is situated within the Rural Zone. The site is not subject to any District Plan Policy Overlays and does not contain any identified special features.

To construct the wastewater treatment facility within the Rural Zone, a Non-complying resource consent is required under Rule 4.4.1.5 (b) – All activities not listed under another activity status.

Zoning



Property description and land use

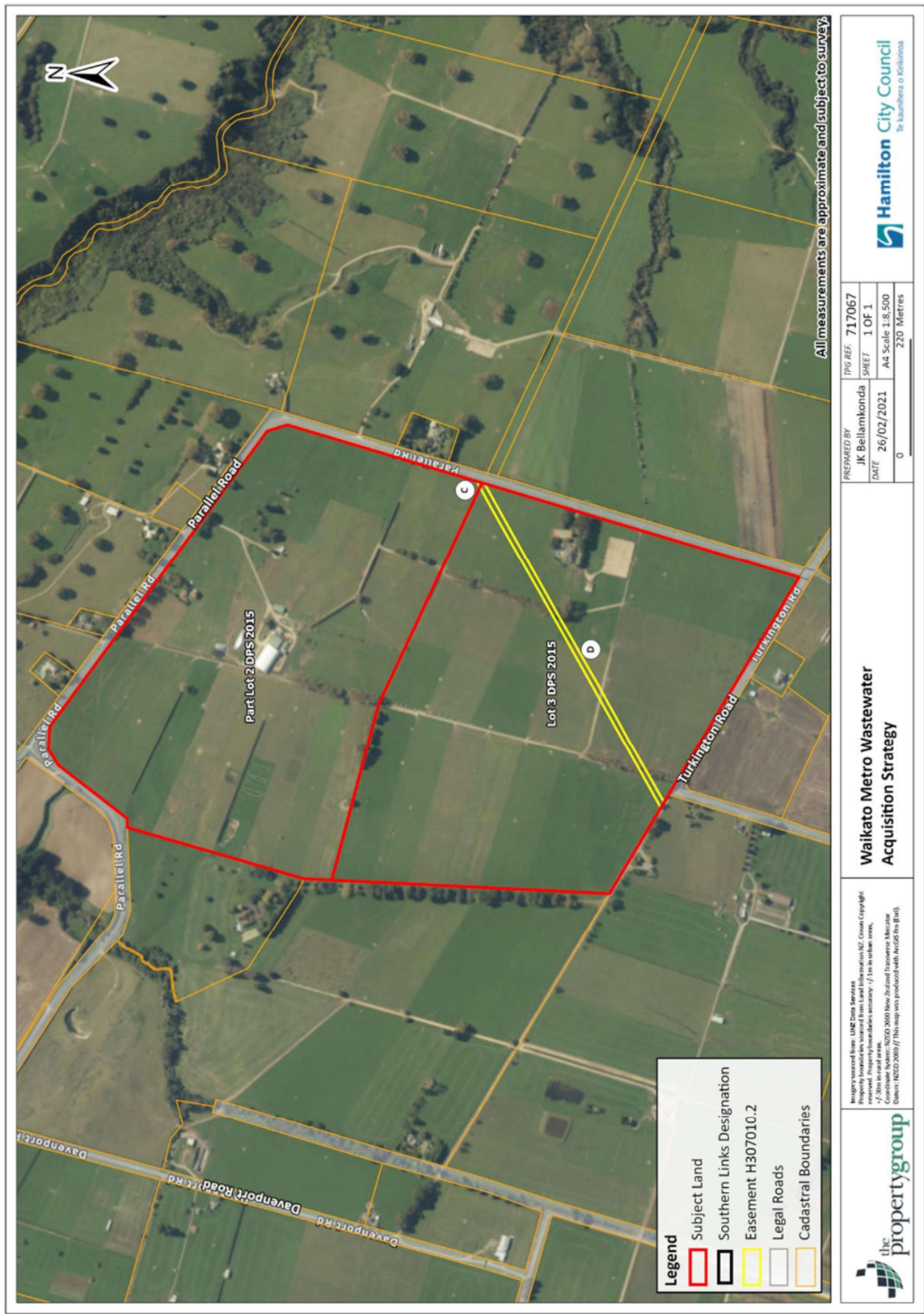
Appears to be used by the owner for dairy farming purposes. The land is largely flat in contour and there are residential dwellings located within each of the properties.

Statutory constraints	None that we are aware of.
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Landowner issues/impact of acquisition	<p>The property is part of a larger holding comprising 273ha used by the owner as a functioning dairy farm. Acquisition of part for the proposed wastewater treatment facility is likely to reduce its economic capacity unless replacement land can be acquired by the owner.</p> <p>In cases such as this, the landowner may either request a total purchase or expect land to be vested by way of exchange, if available.</p> <p>It is also possible that the owner may request a replacement dwelling(s) if they need to be removed as part of the development, as both titles appear to contain residential dwellings.</p>
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Land value estimate	<p>The two subject properties have not been separately rated.</p> <p>The entire property comprising 273ha has been valued at \$13.5M as at August 2019, or \$40,000 per ha.</p> <p>Dairy land within with Waikato district typically sells for \$4m² - \$8m² dependent upon factors such as soil quality/productivity and topography.</p> <p>We would expect compensation for each property to assessed within the following ranges.</p> <ol style="list-style-type: none">1. \$3M - \$3.5M.2. \$3M - \$3.5M.
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Summary	<ol style="list-style-type: none">1. A non-complying resource consent is required under Rule 4.4.1.5 to construct a wastewater treatment facility within the Rural Zone.2. The property legally described as being Lot 3 DPS 2015 is subject to a water supply easement in favour of several adjacent properties that draws water from the Mangawhero Stream, but cuts through the site diagonally from the north-east to the south-west. It is not clear whether the pipe is operable.3. Acquisition of part for the proposed wastewater treatment facility is likely to reduce the economic viability of the farm unless replacement land can be acquired by the owner.
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Reference: Property A

Owner	Riverside Golf Club Incorporated (Waka Kotahi NZ Transport Agency)
Property address/location	Airport Road, Hamilton
Title reference	RT SA25D/881
Area and legal description	31.50 ha (subject to survey and exclusive of the marginal strip referred to below), more or less being Lot 2 DPS 27782, part Lot 9 DP 9747, part Lot 1 DPS 11859 and Lot 2 DPS 14668.
Tenure/status	<p>The Crown holds an equitable interest in the entire property pursuant to compensation certificate 11318322.1.</p> <p>Settlement and vacant possession is expected on, or prior to, 1 February 2022.</p>
Encumbrances and memorials (registered interests)	Land Covenant in Transfer S608620 This covenant has the effect of not permitting the use of the land for poultry farming, commercial pig farming and boarding kennels for dogs.
	Subject to Section 308(4) Local Government Act 1974 Required amalgamation of lots, which has already occurred.
	B537026.1 Gazette Notice declaring the adjoining State Highway No 21 (Junction with SH1 at Tamahere to Narrows Bridge) fronting the within land to be a limited access road Noting that the property has legal frontage to a state highway.
	B579725.1 Notice pursuant to Section 91 Transit New Zealand Act 1989 Notes that the property has a licenced crossing place and defined by (now) Waka Kotahi NZ Transport Agency.
	11318322.1 Compensation certificate pursuant to section 19 of the Public Works Act 1981 Records the unconditional sale of the property to the Crown for road.

The Waikato District Plan is currently under review, therefore, both the Operative District Plan (ODP) and the Proposed District Plan (PDP) are relevant. Many decisions of the PDP have not been made and therefore most rules of the PDP have no legal effect at this time. However, the PDP rules and the submissions that have been made on the PDP are relevant to consider.

The site is located within the Waikato District and is situated within the Rural Zone of the Operative Waikato District Plan (ODP). The western boundary of the site (where it adjoins the Waikato River) is subject to the landscape policy area. A portion of the site (identified within the pink outline) is subject to designation J22. The purpose of this designation is for the southern links project of which Waka Kotahi are the requiring authority.

Zoning

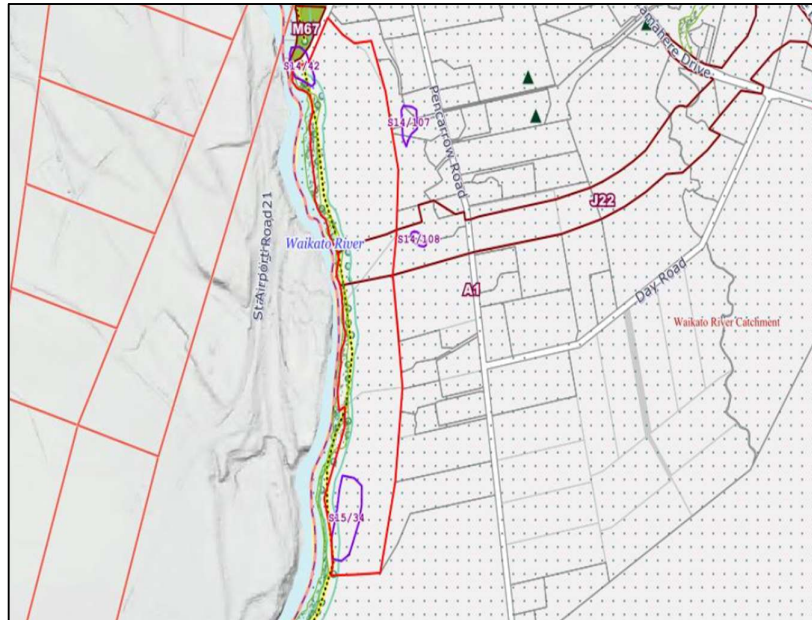


ODP Rule 25.33 wastewater treatment plant – Discretionary activity

The site is located within the Rural Zone of the Proposed District Plan (PDP). The land which directly adjoins the Waikato River along the western boundary is identified as being a Significant Natural Area (dark green hatched area) and is also identified as being a Significant Amenity Landscape Area (light green spots). The yellow and black dotted line included on the PDP map indicates a walkway/cycleway.

A portion of the site is subject to designation J22, the purpose of which is to enable maintenance, operation, use, and improvement of the state highway network in relation to the Southern Links section.

There are two sites of significance to Maori identified on the PDP Maps, the approximate location of these are demonstrated by the purple circles included on the PDP Zones Map.



Any earthworks proposed within the vicinity of a Maori area of significance requires a resource consent where the effects on heritage and cultural values are required to be assessed.

PDP Rule 22.1.5 – Any activity not provided for as a Permitted, Restricted Discretionary, or Discretionary activity is a Non-complying activity.

The site is not identified as being subject to a site-specific submission that has been lodged against the Waikato District Plan. However, the rules which relate to the Rural Zone (in general) may be subject to change through the plan change process.

**Property description
and land use**

Currently used as an operational golf course by the registered proprietor. Upon closure of the course on or before 1 February 2022, the property will become vacant and available for either retention or disposal by the Crown.

Statutory constraints

Transfer could be effected in terms of section 50 of the Public Works Act 1981, which provides for transfers of land between the Crown and local authorities for the purpose of public works.

Any sale would be subject to all Crown clearances being provided, including the retention by the Crown of a marginal strip 20m in width along the entire length of property where it abuts the Waikato River as provided for by section 24 of the Conservation Act 1987.

**Landowner
issues/impact of
acquisition**

The property will be severed following completion of the Southern Links project. We understand that the southern portion, comprising approximately 16.05ha, will continue to have access under the new road alignment.

The northern portion, comprising approximately 15.15 ha, will continue to have access to Airport Road (State Highway 21).

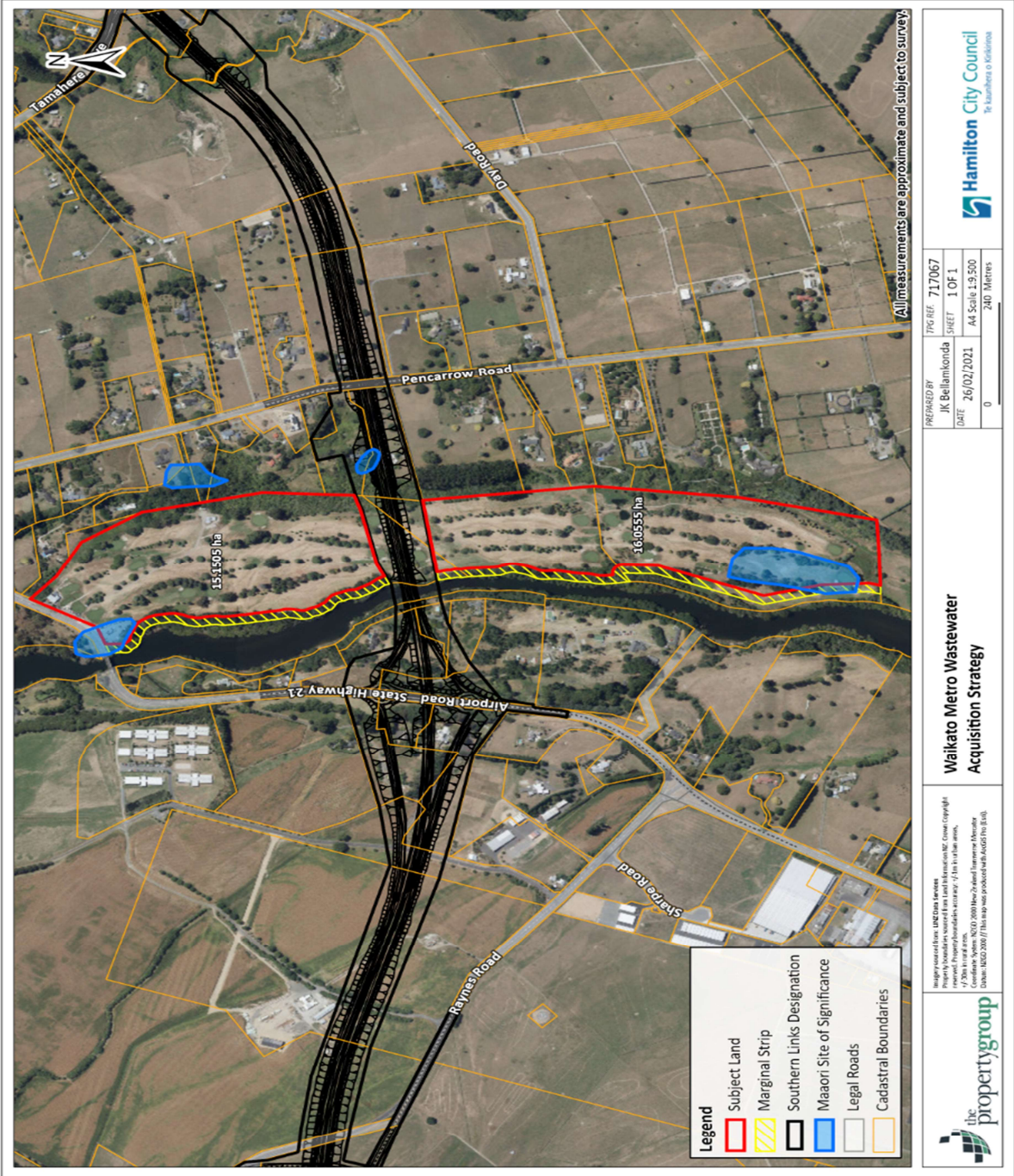
Land value estimate

Rating valuation dated July 2017 at \$3.26M.

Compensation estimate: \$4M – \$5M.

Summary

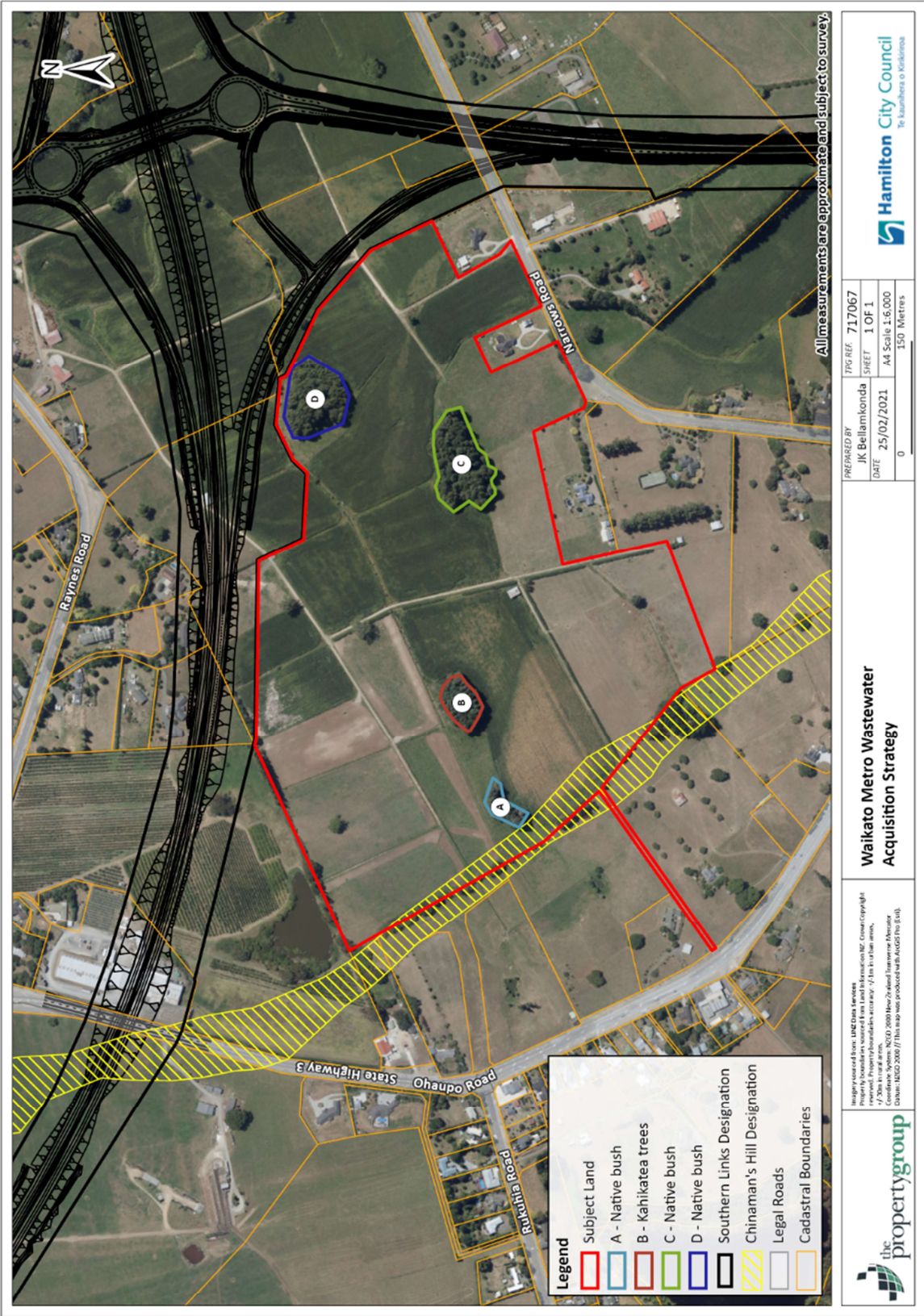
1. Any sale would be subject to the retention by the Crown of a marginal strip 20m in width along the entire length of the property where it abuts the Waikato River.
 2. The land directly adjoining the Waikato River is identified as being a Significant Natural Area and is also identified as being a Significant Amenity Landscape Area, although this area would likely be captured within the marginal strip.
 3. Access to the site would not be available until circa February 2022.
 4. The property will be severed into two parcels following completion of the Southern Links roading project and access between the two severances would need to be negotiated with Waka Kotahi NZ Transport Agency as a condition of sale.
 5. Two sites of significance to Maori are located within the property.
 6. Use of the site for wastewater management facility is a non-complying activity.
-



Reference: Property B

Owner	Her Majesty the Queen (administered by Waka Kotahi)
Property address/location	Narrows Road/Ohaupo Road (SH 3)
Title reference	RT 534321
Area and legal description	Approximately 35 ha (subject to survey) legally described as being part Lot 1 DP 420545 shown outlined in red on the plan attached to this report.
Tenure/status	Freehold
Encumbrances and memorials (registered interests)	S644906 Gazette notice declaring State Highway 3 to be a limited access road Notes that the property adjoins SH 3.
	6732297.1 Consent notice pursuant to section 221 Resource Management Act 1991 Requires protection of the stand of Kahikatea trees located within the land by appropriate fencing, weed eradication and suitable buffer planting shown as area B on the attached plan.
	8593545.6 Consent notice pursuant to section 221 Resource Management Act 1991 Requires protection of three further bush areas located within the land by appropriate fencing and suitable other measures.
	The areas subject to protection are shown as Areas A, C and D on the attached plan.

Property description and land use	<p>Appears to be predominately flat to gently rolling contour and used as an operational dairy farm.</p> <p>The property has legal frontage to both Narrows Road and Ohaupo Road (SH 3), although access to Ohaupo Road could be affected in the event the Chinaman's Hill project proceeds in some form.</p>
Statutory constraints	<p>Transfer could be effected in terms of section 50 of the Public Works Act 1981, which provides for transfers of land between the Crown and local authorities for the purpose of public works.</p>
Landowner issues/impact of acquisition	<p>The subject property forms part of a larger dairy farm purchased by the Crown for the Southern Links roading project.</p> <p>Once constructed, the subject property would be located directly adjacent to and south-west of a central interchange linking traffic moving east to west from Tamahere to Greenwood Street, and north to south from Peacocke to the Hamilton Airport and further south to Ohaupo and Te Awamutu.</p> <p>There are three other areas that will be severed by the Southern Links designation, but none are of sufficient size to meet the requirements of the Project.</p>
Land value estimate	<p>Land held for dairy purposes of this nature typically sells for around \$6m² - \$8m². However, given the proximity of the land to Hamilton City and the proposed Southern Links interchange, there is likely to a small premium that buyers may be prepared to pay over and above this to reflect its long-term development potential. On this basis, a range of \$100m² - \$120m² could be expected, which provides a range for valuation purposes of \$3.5M - \$4.2M.</p>
Summary	<ol style="list-style-type: none"> 1. Location adjacent to a significant roading interchange (Southern Links). 2. Construction of a wastewater treatment facility within the property would be a non-complying activity. 3. There are three areas of native bush and one stand of Kahikatea trees located within the centre of the property that require on-going protection.



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Rev.No.	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
Final Rev 1.0	T. Hankinson	T. Eldridge		T. Eldridge		11 March 2022