



## **Infrastructure Assessment Report**

### **Pukekohekohe Gateway Plan Change**

222-250 Manukau Road, Pukekohe, 2120  
Auckland Thoroughbred Racing

8/04/2025

Private Plan Change

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## Document Control

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<b>Reviewer</b>	Brian Flood – General Manager Major Projects Infrastructure
<b>Approval</b>	Brian Flood – General Manager Major Projects Infrastructure
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## 1. Executive Summary

This report addresses the Civil Engineering matters associated with the proposed Pukekohekohe Gateway Plan Change application (a Private Plan Change, hereafter referred to as the PPC). The report has been prepared on behalf of Auckland Thoroughbred Racing (ATR).

The site at 222-250 Manukau Road, Pukekohe, 2120 is currently zoned as Special Purpose – Major Recreation Facility Zone. The park has primarily been used for horse racing, horse training, and motor racing. With motor racing ceasing operation in April 2023, ATR are seeking to re-zone 22.96ha of land adjacent Buckland Road (Site) to Residential - Mixed Housing Urban and Open Space – Informal Recreation, to enable land for residential development. This re-zoning is limited to land that is not currently being utilised as part of the track facilities, and in the future will provide green space and housing that overlooks the thoroughbred racing facilities.

The report investigates the existing infrastructure's ability to service the re-zoning of the site to a yield density of approximately 400-600 residential dwellings. It should be read in conjunction with the Pukekohekohe Gateway Plan Change Stormwater Management Plan prepared by Woods, and other relevant reports included in the PPC application prepared by Barker & Associates.

The proposed re-zoning encompasses land that contains an existing man-made open trapezoidal channel that caters for the upstream Pukekohe Stormwater Catchment. An outcome of high-level development feasibility investigations is the proposal to realign and daylight portions of the existing watercourse and piped network to provide higher yield outcomes, and to improve the watercourse through elements of naturalisation, hydraulics and community amenity. Refer to the Pukekohekohe Gateway Plan Change Stormwater Management Plan, prepared by Woods, for further details.

Woods' assessment of earthworks, 3-waters elements (stormwater and wastewater drainage, and potable water supply), and utility services (power and telecommunications) found the following:

- Conceptual surface modelling shows that overland flow paths can be controlled within road reserves and conveyance channels, allowing for building platforms to meet the minimum freeboard requirements outlined in the Auckland Unitary Plan (Operative in Part) (AUP (OP)) Auckland Council Stormwater Code of Practice and Building Code.
- High level stormwater design has been undertaken for the primary network based on conceptual Urban Design layouts and show that the Site can be serviced accordingly. The piped network was designed to cater for the 10-year ARI stormwater flows including 2.1°C climate change, as per the latest Auckland Council Stormwater Code of Practice.
- Two existing wastewater transmission lines pass through the Site and discharge to a pump station on Buckland Road. Watercare has confirmed that there is capacity within the existing bulk infrastructure to service future development enabled by the PPC. Wastewater from the proposed re-zoned areas will discharge to the pump station or trunk networks via new publicly reticulated pipe networks.
- An existing 150mmØ water supply main runs adjacent the Pukekohe Park Racecourse through Buckland Road. Watercare has confirmed that there is capacity within the existing bulk infrastructure to service future development enabled by the PPC. Water supply will be provided within the proposed re-zoned areas via new publicly reticulated looped mains.
- Counties Energy have provided a letter of support for the proposed re-zoning, stating that power supply exists to meet the requirements of future development within the Pukekohekohe Gateway Precinct.
- Chorus have provided a letter confirming that UFB fibre can be provided to service future development within the Pukekohekohe Gateway Precinct.

Accordingly, there is sufficient infrastructure to allow for the proposed re-zoning, and future development.

## 2. Introduction

### 2.1. Background

This report, together with the conceptual civil engineering design plans and supporting letters from infrastructure controlling authorities, were produced based on high-level urban design layouts and yields provided by Woods in conjunction with Barker & Associates Ltd., assuming the re-zoning of the Site to Residential - Mixed Housing Urban and Open Space – Informal Recreation zones.

The proposed re-zoning will enable the development of approximately 400-600 new residential dwellings which will primarily comprise fee simple lots with a mix of standalone, attached and semi-detached homes.

A previous plan change (PC30) was approved in the north of the Pukekohe Park Racecourse which re-zoned part of ATR's land from Special Purpose – Major Recreation Facility Zone to Business - General Business Zone. This PPC application does not overlap with the extents of PC30.

### 2.2. Site Description

#### 2.2.1. Legal Description

The Pukekohe Park Racecourse is legally described in Table 1 below. The Site comprises five parcels, four of which will be either partially or fully re-zoned as part of this application. The area of the Site is approximately 72.5ha, of which 22.96ha is proposed to be re-zoned and included within the Pukekohekohe Gateway Precinct.

Address	Certificate of Title	Legal Description	Area	Proposed Zoning Status
222-250 Manukau Road, Pukekohe, 2120	153788	Lot 1, DP 337473	0.6646ha	Unchanged
	153789	Lot 2, DP 337473	53.7634ha	Partially Changed
	NA54C/889	Lot 2, DP 100207	3.1238ha	Partially Changed
	1218268	LOT 2 DP 610920	7.5873ha	Partially Changed
	1218267	LOT 1 DP 610920	7.3589ha	Partially Changed

Table 1: Existing Title Summary Table

#### 2.2.2. Site Location

The Pukekohe Park Racecourse is located in southern Pukekohe, west of State Highway 1, and can be accessed from the Mill Road Exit. The Site is bound by Manukau Road to the north-west, Buckland Road to the west, and Station Road to the east. Between the racecourse and Station Road runs the North Auckland Rail Line, that links the Auckland Region to the Waikato.





Figure 1: Pukekohe Park Racecourse with Proposed PPC area

The proposed PPC Site is currently located within a Special Purpose – Major Recreation Facility Zone. This PPC application seeks to rezone this area to Residential - Mixed Housing Urban and Open Space – Informal Recreation. Refer to Figure 2 below.

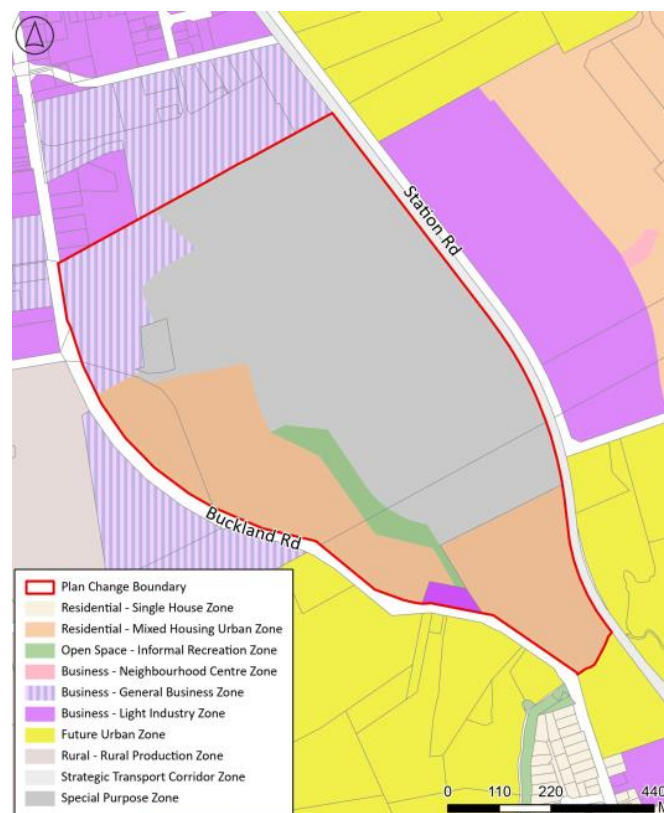


Figure 2: Proposed Zoning and Precinct Plan.

### 3. Earthworks

Woods have undertaken conceptual surface modelling to test various landform options that will provide the Site with sufficient gradients to service future roading, wastewater and stormwater drainage networks. The concept surface model proposes earthworks with both cut and fill, and the landform being lifted in some locations to accommodate potential urban design layouts. The modelling also shows that overland flow paths can be controlled within road reserves and conveyance channels, allowing for building platforms to achieve the minimum freeboard requirements outlined in the AUP (OP), Auckland Council Stormwater Code of Practice, and Building Code.

### 4. Stormwater

High level stormwater design has been undertaken for the primary network based on conceptual Urban Design layouts and show that the Site can be serviced accordingly. The conceptual piped network was designed to cater for the 10-year ARI stormwater flows including 2.1°C climate change, as per the latest Auckland Council Stormwater Code of Practice. The final reticulation layouts and pipe sizes will be confirmed upon future consenting applications and will be in accordance with the operative version of the Auckland Council Stormwater Code of Practice at the time of development.

Refer to the Pukekohekohe Gateway Plan Change Stormwater Management Plan, prepared by Woods, for further details on the proposed stormwater management strategy for the PPC Area.

## 5. Wastewater

### 5.1. Existing Wastewater Infrastructure

Pukekohe is predominantly comprised of a network of gravity mains which deliver flows to three pump stations: the Wesley Pump Station, the Franklin Road Pump Station, and the Pukekohe Pump Station. These flows are conveyed to the Pukekohe Treatment Plant downstream before being treated and released into the Waikato River. The Pukekohe North Pump Station (Isabella Drive Pump Station) and associated 800mm riser main through Station Road is set to begin construction mid-2025 and projected to be complete by 2028.

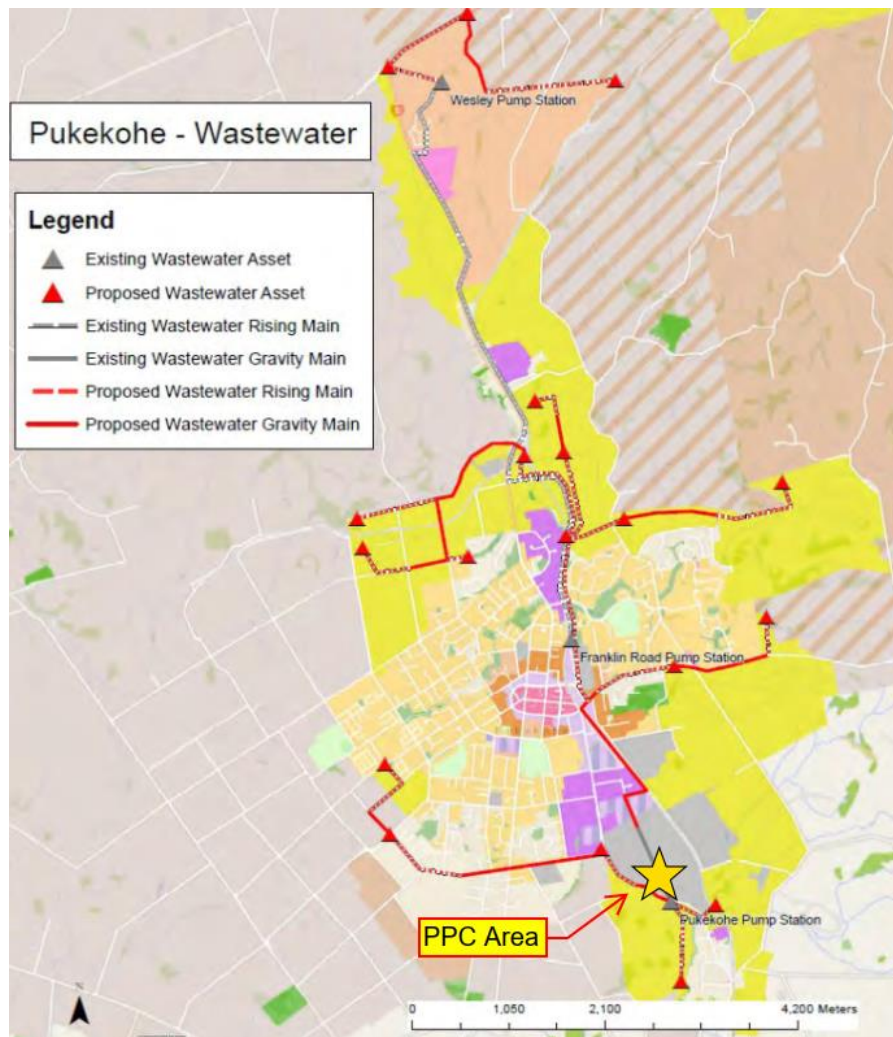


Figure 3: Pukekohe Wastewater Catchment (Source: Pukekohe-Paerata Structure Plan, 2019)

Woods have reviewed the existing wastewater infrastructure using Auckland Council's GeoMaps and topographical survey of the Pukekohe Park Racecourse. Two public wastewater transmission lines (525mm $\varnothing$  and 900mm $\varnothing$ ) run through the Site from north to south and are intercepted by the Pukekohe Pump Station at 360 Buckland Road, adjacent ATR owned land. Both mains are gravity fed.





Figure 4: The Pukekohe Pump Station and Connecting Network

## 5.2. Proposed Wastewater Strategy

Woods have contacted Watercare Services Ltd (Watercare) to undertake an assessment of the existing wastewater network within the Pukekohe Park Racecourse. The conservative assessment assumed a development yield of 1,000 new dwellings. In April of 2024, Watercare provided a confirmation letter stating that they had assessed the Pukekohe Pump Station at 360 Buckland Road, and at the time of their assessment, deemed the downstream network to have sufficient capacity for the expected flows.

The yield of 1,000 dwellings was a high-level number and assumed a hypothetical full build-out redevelopment of ATR's Pukekohe Park Racecourse and is not reflective of this application. This PPC application only captures a portion of this land and assumes a yield of approximately 400-600 residential dwellings.

As part of subsequent meetings, Watercare has confirmed that there is capacity within the existing bulk infrastructure and that only local upgrades and connections are required to service future development enabled by the PPC. Refer to Appendix A for Watercare correspondence.

The future development will utilise the existing wastewater network or the Pukekohe Pump Station as discharge points. Woods have modelled conceptual development drainage networks with Sub-Precinct A utilising the 525mm $\varnothing$  wastewater main, and Sub-Precinct B utilising the 900mm $\varnothing$  wastewater main as discharge points, and confirm that wastewater can viably discharge to the existing trunk mains via gravity fed reticulation. Indicative discharge points are shown in Figure 5 overleaf and in Appendix G.

The final reticulation layouts and pipe sizes will be confirmed upon future consenting applications, however new wastewater pipes are expected to be <225mm $\varnothing$  and will discharge with anticipated Peak Wet Weather Flows (PWWF) of 25.13L/s, based on a yield of approximately 600 dwellings. Refer to Appendix E for wastewater calculations.

Future outcomes will be in accordance with the Watercare Code of Practice for Land Development.

No land ownership constraints are expected as the existing wastewater transmission mains fall within ATR owned land.



Figure 5: Wastewater Network and Potential Future Connection Points

## 6. Water Supply

### 6.1. Existing Water Supply Infrastructure

Water supply for the Pukekohe area originates from the Waikato River where it is abstracted and treated at the Waikato Water Treatment Plant. This then feeds storage reservoirs at Totara Ave and Kitchener Road via the Waikato 1 and Pukekohe 1 bulk infrastructure mains. The supply is transferred to the Anzac Reservoir and Hill Reservoir through a series of pump stations. These reservoirs supply the local networks.

Woods have reviewed the existing water supply infrastructure using Auckland Council's GeoMaps and topographical survey of the Site. An existing 150mmØ public water supply main runs through Buckland Road and Manukau Road to the west of the Site, with an additional 80mmØ/100mmØ main on the opposite side of Buckland Road. A 100mmØ public main also extends into the Pukekohe Park Racecourse to the north of the proposed PPC Area. Kitchener Road and John Street to the west contain a 630mmØ bulk water main, approximately 400m from the Site.

ATR engaged Nova Flowtec Services in early 2024 to carry out hydrant testing and determine the pressures of the existing water supply along Buckland Road. Three hydrants were tested adjacent the Pukekohe Park Racecourse and determined that a flow of 74.2L/s at 220kPa was recorded. These pressures meet the PAS 4509: 2008 minimum requirements for FW3, i.e. a total of 50L/s at a minimum residential pressure of 100kPa. These test results are contained in Appendix D.

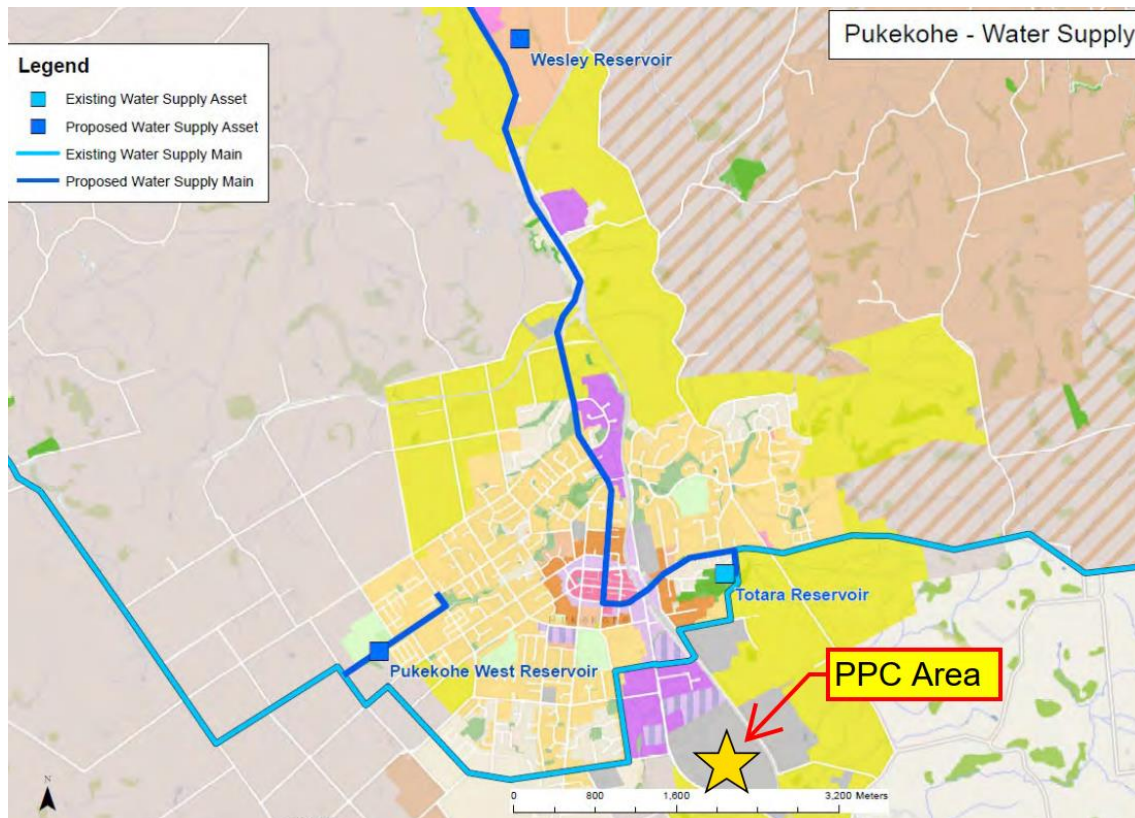


Figure 6: Pukekohe Water Supply Catchment (Source: Pukekohe-Paerata Structure Plan, 2019)



## 6.2. Proposed Water Supply Strategy

Woods have contacted Watercare to undertake an assessment of the existing water supply network adjacent the Pukekohe Park Racecourse. The conservative assessment assumed the development of 1,000 new dwellings to draw from the existing network (although, as stated Section 5.2 of this report, the yield of 1,000 dwellings is a hypothetical full build out of the Site and is not reflective of this application, which anticipates a yield of approximately 400-600 dwellings). In April of 2024, Watercare provided a confirmation letter stating that as part of agreements already in place, there will be a new bulk supply and a transmission/distribution upgrade on the site or wider servicing plan in the Pukekohe Park Racecourse area, and agreements on these upgrades are already in place.

As part of subsequent meetings, Watercare has confirmed that there is capacity within the existing bulk infrastructure and that only local upgrades and connections are required to service future development enabled by the PPC. Refer to Appendix A for Watercare correspondence.

The future development will utilise the existing water supply network through Buckland Road as connection points. As the Buckland Road 150mmØ main is looped from both Manukau Road and Kitchener Road, it is expected that the existing network will provide adequate flows and pressures to the proposed Site.

An indicative water supply reticulation layout is shown in Figure 7 below and in Appendix G.

The final reticulation layouts and pipe sizes will be confirmed upon future consenting applications, however new water supply pipes are expected to range from 50mmØ to 150mmØ with an anticipated Peak Hourly Demand of 22.92L/s, based on an approximate yield of 600 dwellings. Refer to Appendix F for water supply calculations.

Future outcomes will be in accordance with the Watercare Code of Practice for Land Development.

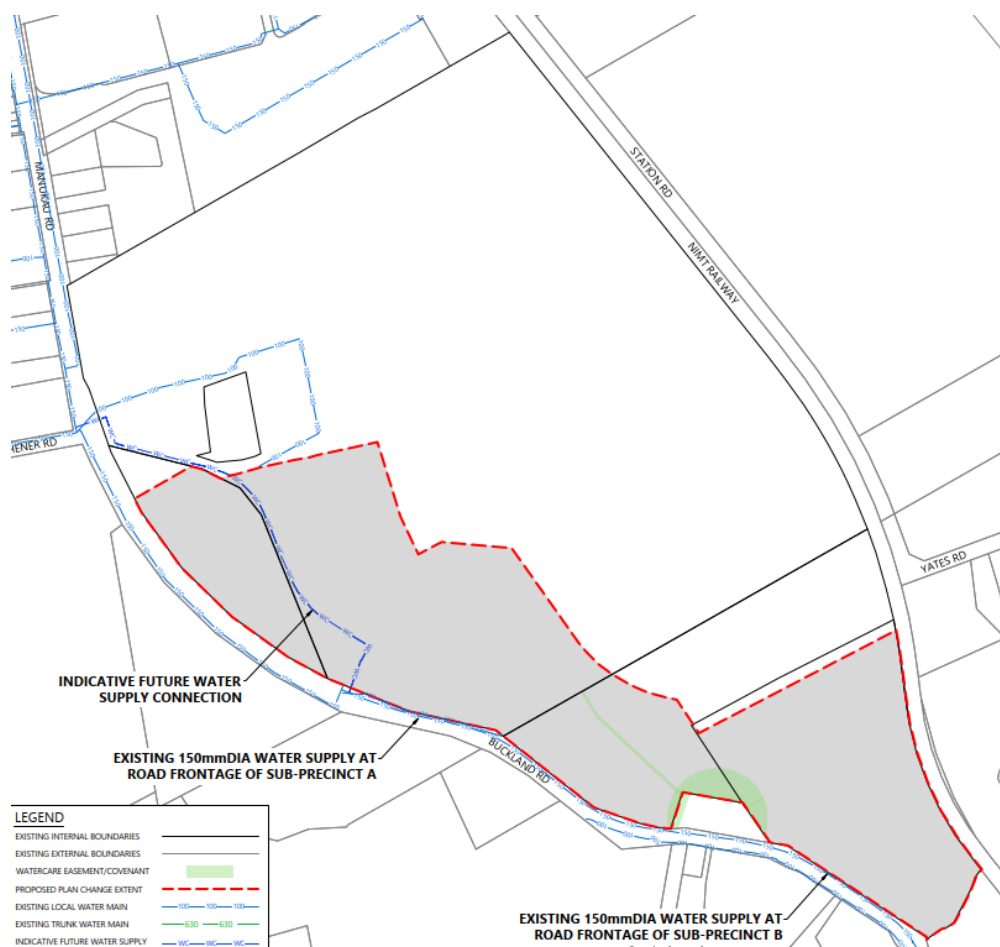


Figure 7: Water Network and Potential Future Connection Points

## 7. Utilities

### 7.1. Power

There is existing power reticulation through Buckland Road adjacent the western boundary of the Site. Counties Energy have provided a letter of support for the PPC application based on a yield of 500 dwellings and have confirmed that existing power supply to meet the requirements of the future development exists in the area because the Site is close to the Counties Energy 60MV 110kV substation located on Manukau Road.

For further information, please refer to the Counties Energy Support Letter in Appendix C.

### 7.2. Telecommunications

There is existing fibre reticulated through Buckland Road adjacent the western boundary of the Site. Woods have contacted Chorus to provide feedback on the proposed PPC application based on a yield of 500 dwellings and to be re-zoned to Mixed Housing Urban. Chorus have provided a letter confirming that UFB fibre can be extended to provide connection availability.

For further information, please refer to the Chorus Support Letter in Appendix B.



## 8. Conclusion

Assessments have been undertaken for earthworks, infrastructure serviceability of 3-waters, and for utilities. Conceptual surface modelling shows that overland flow paths can be controlled within road reserves and conveyance channels. Stormwater design has been undertaken for the primary network based on conceptual Urban Design layouts and show that the Site can be serviced accordingly. Watercare Services Ltd has confirmed that wastewater and water supply infrastructure has capacity, or that upgrades and agreements are in place to service the Site, while Nova Flowtec have confirmed that hydrant testing indicates the minimum FW3 requirement is available. Counties Energy and Chorus confirm that electrical reticulation and UFB fibre, respectively, can be provided for future developments.

Based on these investigations, Woods, from a civil engineering perspective, have identified no significant infrastructure constraints and consider the Site appropriate for the proposed rezoning.

Appendix A: Watercare Consultation Documents



29<sup>th</sup> April 2024

**Adam Sadgrove**

Auckland Thoroughbred Racing Club

100 Ascot Avenue

Remuera

**1050 Auckland**

Dear Michael,

**Re: Initial High-Level Assessment.**

Watercare application number **CON-215678**

Request for information on reviews of the development assessment and confirm existing capacity of the Pump Station at 360 Buckland RD, Pukekohe and the Water Supply Network to serve a potential 1000 residential dwellings at 222-250 Manukau RD Pukekohe 2120.

Here-below is the response;

Thank you for your application. As a result of the above request, the following initial high-level assessment was made for the proposed development.

Please refer to our comment(s) below:

**Wastewater:**

- **Based on the information available, it is considered the downstream network has sufficient capacity for expected flows from this development.**

**Water Supply:**

- **The area on where the proposed development is, will have a new bulk supply and a transmission/distribution upgrade or a wider servicing plan in the area and an agreement on the upgrades were already in place.**

The assessment is at the *time of this letter and is just for your information*. The timing of development is critical and future upgrade requirements will be assessed by Watercare in more detail under the Resource Consent (RC) stage and / or engineering plan approval process.

This review does not constitute resource consent or engineering plan approval. You will need to apply to Auckland Council and submit these documents with your consent application.

If you have any questions, please contact the Connections Team via [connections@water.co.nz](mailto:connections@water.co.nz) or the Contact Centre on 09 442 2222 and select option 4.

Yours faithfully,



**Nick Odhiambo**

Development Engineer | Developer Services

## Thomas McClory

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**From:** Cosette Pearson <CosetteP@barker.co.nz>  
**Sent:** Thursday, 20 March 2025 1:09 pm  
**To:** Oliver MacKinnon  
**Cc:** Adam Sadgrove; Nick Roberts; Kasey Zhai; Amber Taylor; Thomas McClory; Brian Flood  
**Subject:** RE: Pukekohekohe Park Plan Change - Follow up pre-app with WSL

Hi Oliver,

Thanks for our email and for confirming that there is available capacity to connect development from the plan change area in the future.

In our view, it is not necessary we meet again prior to lodgement.

Thanks again for all of your assistance to date,

Ngā mihi | Kind regards,

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**COSETTE PEARSON**  
Associate  
021 250 5055  
CosetteP@barker.co.nz



barker.co.nz 

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**From:** Oliver MacKinnon <Oliver.MacKinnon@water.co.nz>  
**Sent:** Monday, 17 March 2025 3:18 pm  
**To:** Cosette Pearson <CosetteP@barker.co.nz>  
**Cc:** Adam Sadgrove <adams@ellerslie.co.nz>; Nick Roberts <NickR@barker.co.nz>; Kasey Zhai <KaseyZ@barker.co.nz>; Amber Taylor <Amber.Taylor2@water.co.nz>  
**Subject:** RE: Pukekohekohe Park Plan Change - Follow up pre-app with WSL

Hi Cosette,

Apologies for the delay in reply and thank you for your patience.

The Pukekohe PS (bulk wastewater asset servicing the plan change area) has capacity for approximately 50 years of growth under current forecasts. Our current model has not accounted for growth within the proposed plan change area. This creates uncertainty as to whether the demand on our network from the plan change area would be additive, or whether it would simply be a reallocation of growth from elsewhere in Pukekohe.

If the demand is additive, it may impact our infrastructure in the future potentially triggering either earlier bulk infrastructure upgrades, or where the bulk upgrades cannot be brought forward, a capacity constraint.

Given the potential for the site to developed under the existing Unitary Plan framework, Watercare confirms that there is available capacity to connect development from the plan change area, should the Council approve the proposed plan change.

Happy to meet with you again if necessary. Could you please let me know what remaining questions you have so I can ensure the right people will be available.

Ngā mihi

**Oliver MacKinnon** | Development Lead

**Watercare Services Limited**

**Mobile:** +64 21 224 2097

**Customer service line:** +64 9 442 2222

**Postal address:** Private Bag 92 521, Wellesley Street, Auckland 1141, New Zealand

**Physical address:** 73 Remuera Road, Remuera, Auckland 1050, New Zealand

**Website:** [www.watercare.co.nz](http://www.watercare.co.nz)



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**From:** Cosette Pearson <[CosetteP@barker.co.nz](mailto:CosetteP@barker.co.nz)>

**Sent:** Monday, 17 March 2025 11:22 am

**To:** Oliver MacKinnon <[Oliver.MacKinnon@water.co.nz](mailto:Oliver.MacKinnon@water.co.nz)>

**Cc:** Adam Sadgrove <[adams@ellerslie.co.nz](mailto:adams@ellerslie.co.nz)>; Nick Roberts <[NickR@barker.co.nz](mailto:NickR@barker.co.nz)>; Kasey Zhai <[KaseyZ@barker.co.nz](mailto:KaseyZ@barker.co.nz)>

**Subject:** RE: Pukekohekohe Park Plan Change - Follow up pre-app with WSL

Good morning Oliver,

I hope you had a nice weekend.

Just touching base with you regarding the Pukekohe Park Plan Change. Have the planning team at WSL had a chance to review the memo provided and to confirm the wastewater capacity requirements?

We are still very keen to meet with you to discuss the above, and would appreciate it if we could get a time pencilled into calendars as we are preparing the application for lodgement within the coming weeks.

Looking forward to hearing from you.

Ngā mihi | Kind regards,

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**COSETTE PEARSON**

Associate

021 250 5055

[CosetteP@barker.co.nz](mailto:CosetteP@barker.co.nz)

**barker.co.nz**



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**Project:** Pukekohekohe Park Plan Change – Follow Up Meeting with WSL

**Date:** 19 December 2024

**Time:** 9:30-10:30am

**Location:** Online via MS Teams

**Attendees:**

Name	Role/Organisation
Katja Huls (KH)	Watercare Services Limited
Oliver MacKinnon (OM)	Watercare Services Limited
Etienne Venter (EV)	Watercare Services Limited
Adam Sadgrove (AS)	Auckland Thoroughbred Racing
Brian Flood (BF)	Woods
Thomas McClory (TM)	Woods
Nick Roberts (NR)	Barker & Associates
Cosette Pearson (CP)	Barker & Associates

Item	Detail	Action
1	<p><b>Introductions and Project Update / Overview</b></p> <p>NR provided a general overview and update of progress made on the Pukekohekohe Park PC since last meeting with WSL (refer to presentation at <b>Attachment 1</b>).</p>	
2	<p><b>Proposed Rezoning of Pumpstation Site</b></p> <p>NR noted that as part of this Plan Change, ATR would look to tidy up the zone of the WSL Pumpstation site (refer slide 21 of <b>Attachment 1</b>).</p> <p>As the pumpstation site is surrounded by the area proposed to be rezoned from Special Purpose – Major Recreation Facility zone to either Residential – Mixed Housing Urban zone or Open Space – Informal Recreation zone, the current zone would sit as a spot zone of “Special Purpose – Major Recreation Facility zone”. NR also noted that the pumpstation site is subject to the Watercare Designation (Designation 9569) which provides for everything WSL need to do on the site.</p> <p>KH noted that this will need to be checked past the WSL consenting team. KH noted that she will provide WSL feedback on the proposed rezoning of the pumpstation site from SP – MRFZ to OS-IRZ.</p>	<p>KH to provide WSL feedback on proposed rezoning of the WSL Pumpstation site from Special Purpose to Open Space zone.</p>
3	<p><b>Wastewater Capacity Assessment</b></p>	

	<p>KH requested that Woods team undertake a comparison assessment of wastewater demand between <b>plan enabled permitted activities</b> (under the existing Pukekohe Park Precinct – that being development including workers accommodation and buildings up to 16.5m as permitted activities) with the capacity enabled under the proposed Plan Change.</p> <p>All understand the demand from big events can be really big but WSL keen to understand what plan enabled development could also occur in addition to the large events.</p> <p>TM / BF to update the capacity assessment comparison memo between plan enabled development and enabled capacity under the proposed Plan Change.</p>	<p>TM/BF to update memo and recalculate peak flows and circulate to WSL team early 2025.</p>
4	<p><b>Wastewater Infrastructure Discussion</b></p> <p>BF spoke to the Wastewater Infrastructure Plan from the Auckland Council Pukekohe-Paerata Structure Plan and expressed interest in understanding more from WSL on the planned infrastructure in line with the Structure Plan.</p> <p>OM noted that there are no planned upgrades to the two wastewater pipes which run through the ATR site currently.</p> <p>OM noted that two pumpstations nearby will be upgraded with construction commencing in 2025.</p> <p>OM confirmed that constraints are in the pipes as opposed to the pumpstation itself.</p> <p>OM confirmed that there is capacity for development enabled by the proposed Plan Change at the existing pumpstation and there is capacity within the bulk infrastructure (noting that connections from live zoned land are prioritised over FUZ land).</p> <p>NR questioned whether there was an opportunity to bypass the existing pipes which are constrained and connect future development directly with the pumpstation (which has confirmed capacity)? – WSL team confirmed this would be an appropriate solution.</p> <p>EV undertaking more work on the existing infrastructure capacity and will circulate information on this in the New Year.</p> <p>EV agreed with the preliminary calculation of 25L/s Peak Wet Weather Flow for the proposed 600 DUE development, however questioned the calculation of the existing potential peak flow of 46L/s under the current zoning. He noted that it seems very high. He also noted that the plan change area does not include the main pavilion of the racetrack which would be the main connection where flow would be generated during major events. Major events would also make use of temporary portable toilets which wouldn't add flow to the wastewater system. A more detailed calculation</p>	<p>EV to circulate information on existing wastewater infrastructure.</p>

	may be required to accurately evaluate the current potential peak flows emanating from the plan change area.	
5	<p><b>Water Supply Discussion</b></p> <p>WSL noted that the water planner could not attend the meeting so the testing will be provided to them and feedback from WSL water planner to be provided.</p> <p>WSL noted that the local main just north of the site is needing to be upgraded, however as it will service PC87 site as well there is an opportunity for a cost share agreement for this local infrastructure upgrade.</p> <p>BF to provide fire hydrant testing results to WSL and WSL to provide feedback on loop ring main water supply network.</p>	<p>BF to provide testing results so WSL water planner can check and provide feedback in the New Year.</p> <p>WSL to provide comment on ring main loop water supply network.</p>
6	<p><b>WSL Capacity Assessments</b></p> <p>EV noted that there have been two capacity assessments prepared by WSL for this site. The first being prepared in April which was based on an earlier model of the whole network, and the second which has been prepared and kept internal at WSL is based upon a new assessment from an updated model which includes details including actual flows modelled.</p> <p>KH confirmed that this second assessment has not been issued yet as WSL are confirming the accuracy of the model used, however confirmed that the Plan Change area falls within the area allocation for this area and there are no major changes.</p>	<p>WSL team to check accuracy of model and issue revised WSL capacity assessment.</p>
7	<p><b>General Discussion</b></p> <ul style="list-style-type: none"> <li>WSL team confirmed that they prioritise connecting live zoned land over FUZ to the bulk infrastructure and confirmed that the Pukekohe Park Plan Change area is “live zoned” already, and awaiting further analysis of plan enabled capacity.</li> <li>WSL confirmed that given there is capacity within the existing bulk infrastructure and only local upgrades and connections are required to service the development enabled by the Plan Change, WSL would be neutral on this Plan Change application.</li> <li>All agreed that the wastewater pipes are the constraint as opposed to the pumpstation, so future development enabled by the Plan Change could connect directly to the pumpstation as opposed to via the pipe network. All agreed this could be the most appropriate solution.</li> <li>OM / WSL confirmed that there are no concerns here on bulk supply, rather local network upgrades may be required, and WSL have no reason to oppose this Plan Change on the bulk supply of the development site.</li> </ul>	
8	<b>Next Steps</b>	

<ul style="list-style-type: none"> <li>• All agreed WSL / ATR are keen to keep working together, sharing information and having open collaborative discussions throughout the process.</li> <li>• All agreed there would be benefit in meeting again prior to the Plan Change being lodged.</li> </ul>	<p>Meeting invite circulated 29 January 2025.</p>
--	---

Appendix B: Chorus Support Letter



Chorus NZ Ltd  
4 Graham Street  
Auckland CBD  
Auckland

Adam Sadgrove  
Development Manager  
Auckland Thoroughbred Racing  
222-250 Manukau Road,  
Pukekohe

26<sup>th</sup> August 2024

Hi Adam,

Thank you for providing the updated plan change and indication of your development in this area. I can confirm that we have UFB fibre infrastructure in the area that you are proposing to develop. Chorus will be able to extend our network to provide connection availability to **"Pukekohe Park Racecourse" -222-250 Manukau Road, Pukekohe.**

However, please note that this undertaking would of course be subject to Chorus understanding the final total property connections that we would be providing, roll-out of property releases/dates and what investment may or may not be required from yourselves and Chorus to deliver the infrastructure to and throughout the site in as seamless and practical way as possible.

The costs involved can only be finalised at the time that you are ready to proceed.

Chorus is happy to work with you on this project as the network infrastructure provider of choice. What this ultimately means is that the end customers (business and home owners) will have their choice of any retail service providers to take their end use services from once we work with you to provide the physical infrastructure.

Please reapply with a detailed site plan when you are ready to proceed.

Thanks

Kind Regards,

Danny Masterson  
Business Development Manager  
021849233  
Chorus NZ Ltd

Appendix C: Counties Energy Support Letter

30 August 2024

Adam Sadgrove  
Development Manager  
Auckland Thoroughbred Racing  
222-250 Manukau Road  
Pukekohe

Dear Adam

**Letter of Support for the of Auckland Thoroughbred Racing Private Plan Change Application**

Counties Energy supports the Auckland Thoroughbred Racing (ATR) plan change application, to rezone their Pukekohe site on Manukau Road to Mixed Housing Urban.

Counties Energy is the electricity distribution business that owns and operates the electricity reticulation infrastructure in the wider Pukekohe region from Papakura in the North and Mercer in the South. This region is one of the fastest growing regions of the country. To meet local growth, improve power quality and maintain the existing network, Counties Energy is investing over \$400m in its network over the next ten years.

For ATR's Pukekohe development Counties Energy confirms that power supply exists to meet the requirements of the development. This is because the development is close to Counties Energy's 60MW 110kV substation also located on Manukau Road.

Counties Energy, as a consumer owned electricity distribution business, fully supports ATR's residential development because it both helps build the local community and also alleviates the national housing crisis.

Counties Energy would be happy to answer any further questions.

Yours Faithfully



**Counties Energy Limited**  
Andrew Toop  
GM Commercial



**Physical**  
14 Glasgow Road  
Pukekohe 2120  
New Zealand

**Postal**  
Private Bag 4  
Pukekohe 2340  
New Zealand

**Energy  
Reimagined**

0800 100 202  
[countiesenergy.co.nz](https://countiesenergy.co.nz)

Appendix D: Nova Flowtec Services Hydrant Testing Results



**NOVA FLOWTEC SERVICES LTD**  
HYDRANT TESTING SPECIALISTS

E: [info@novaflowtec.co.nz](mailto:info@novaflowtec.co.nz)  
T: 09 444 8375  
PO Box 241, Albany Village, Auckland 0755  
[www.novaflowtec.co.nz](http://www.novaflowtec.co.nz)

23rd January 2024

Auckland Thoroughbred Racing  
100 Ascot Avenue  
Remuera  
Auckland

**RE: Firefighting Water Supply at 222-250 Manukau Road, Pukekohe (Pukekohe Park – The Pukekohe Horse Racing Club)**

**Attention: Adam Sadgrove**

Dear Adam

Nova Flowtec Services were engaged to conduct a FW3 hydrant flow test for the future development at the above address.

The testing was conducted on Tuesday 23<sup>rd</sup> January at 1.00pm.

The object of the testing was to prove that there is sufficient water for firefighting purposes.

**Requirements:**

In order to meet the FW3 minimum requirements of PAS 4509: 2008, 25Lps is required within 135m and an additional 25Lps is required within 270m of the development.

This being a total of 50Lps at a minimum residual pressure of 100kPa.

**Results:**

It is noted at the time of testing that the location of any future development has not been determined. However, the nearest three hydrants were tested and a flow of 74.2Lps at 220kPa was recorded, proving the minimum FW3 requirement is available at these closest testable hydrants.

If the location of any future development is not within the allowable FW3 distances as described above - Additional hydrant(s) will need to be fitted within the site so as every proposed building has a hydrant within 135m of the main entrance.

Please find the results table and the hydrant map on the following page.

Should you have any questions please do not hesitate to contact me.

Kind Regards

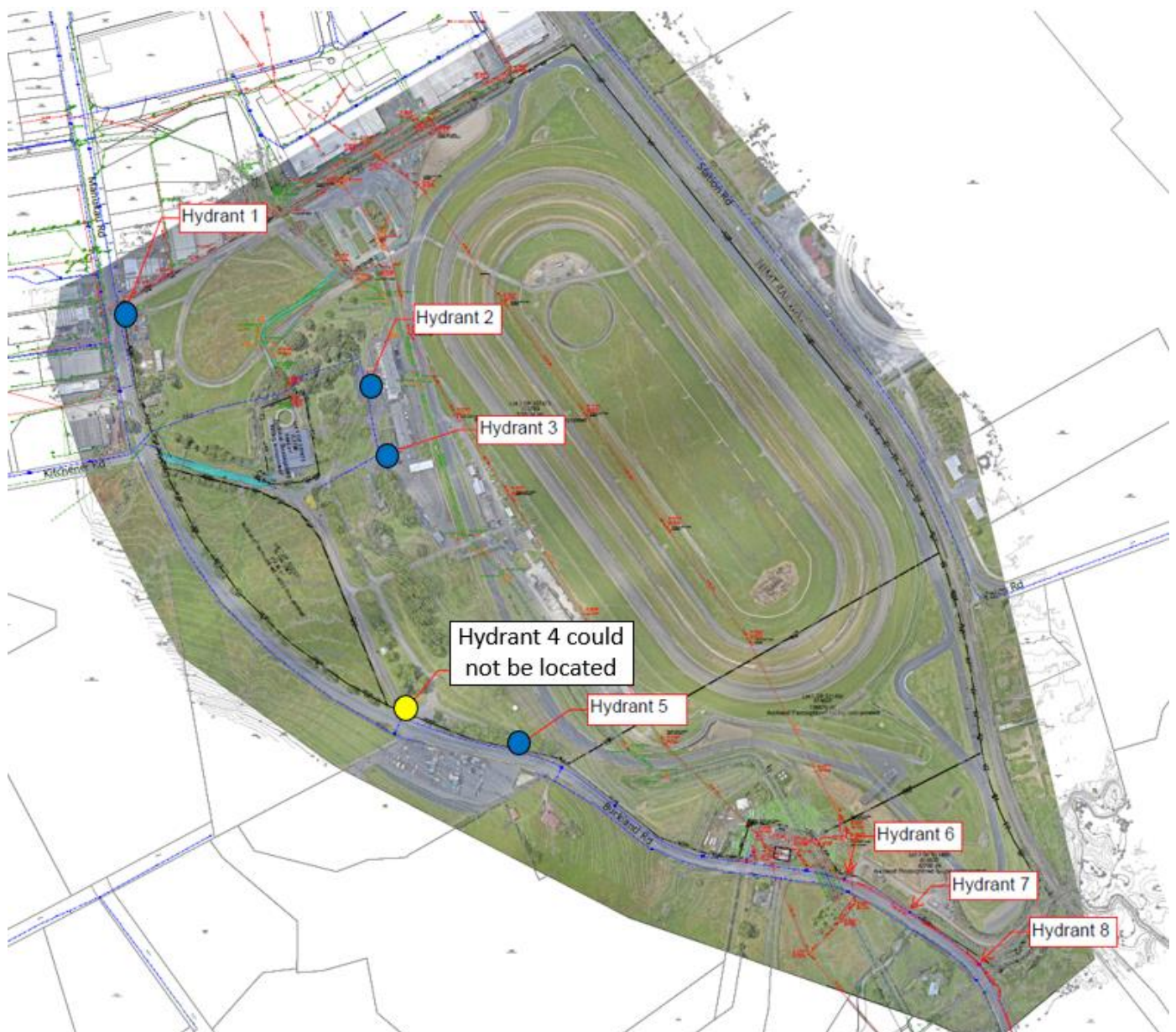
Melanie Keane  
Testing Manager



## FW3 Water Classification Test

	Hydrant One	Hydrant Two	Hydrant Three	Total Flow (Lps)	Hydrant Five Pressure (kPa)
Flow (Lps)				0	390
Flow (Lps)	28.1			28.1	340
Flow (Lps)	26.5	31.5		58.0	250
Flow (Lps)	25.9	24.8	23.5	74.2	220
Date & Time:	Tuesday 23 <sup>rd</sup> January 2024 at 1.00pm				
Site Address:	222-250 Manukau Road, Pukekohe (Pukekohe Park – The Pukekohe Horse Racing Club)				
Full Flow Result:	74.2Lps at 220kPa				

## Hydrant Map





## Mains Flow and Pressure Report

Hydrant locations: 222-250 Manukau Road, Pukekohe (Pukekohe Park – The Pukekohe Horse Racing Club)

Date: 23rd January 2024

Time: 1:00pm

Flow: Hydrant 1

Residual pressure: Hydrant 5

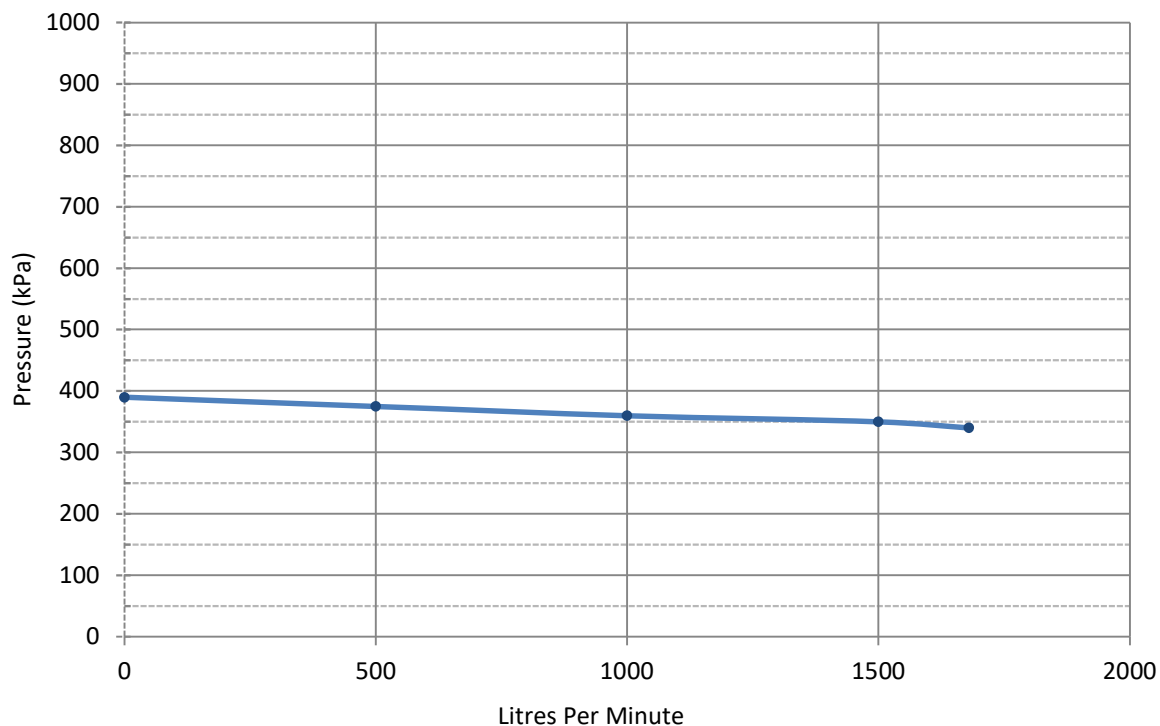
Maximum flow result: 1680Lpm at 340kPa

Test Supervisor: Anthony Blewman

Data:

Flow (Lpm)	Pressure (kPa)
0	390
500	375
1000	360
1500	350
1680	340

Graph:



Notes: The hydrant was flowed to full capacity during testing.

Disclaimer: These results indicate the water networks performance on this given date and time.  
The networks performance is subject to fluctuations.

Hydrant Map: See page 2

## Mains Flow and Pressure Report

Hydrant locations: 222-250 Manukau Road, Pukekohe (Pukekohe Park – The Pukekohe Horse Racing Club)

Date: 23rd January 2024

Time: 1:00pm

Flow: Hydrant 1

Residual pressure: Hydrant 5

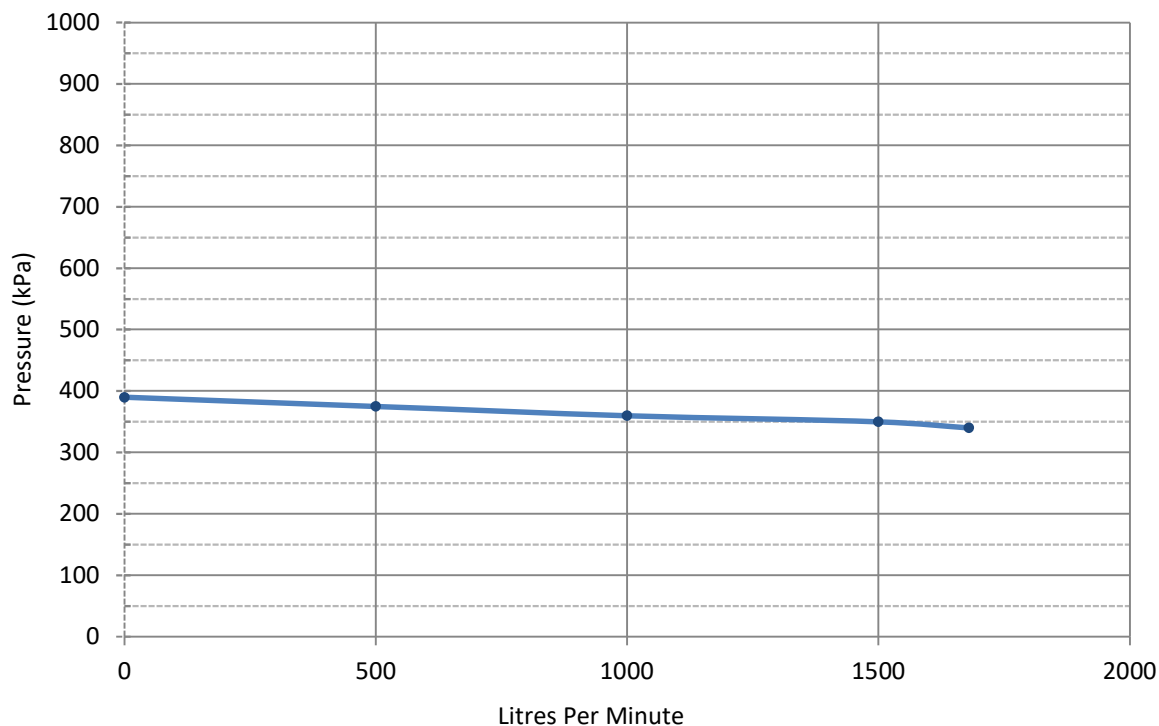
Maximum flow result: 1680Lpm at 340kPa

Test Supervisor: Anthony Blewman

Data:

Flow (Lpm)	Pressure (kPa)
0	390
500	375
1000	360
1500	350
1680	340

Graph:



Notes: The hydrant was flowed to full capacity during testing.

Disclaimer: These results indicate the water networks performance on this given date and time. The networks performance is subject to fluctuations.

Hydrant Map: See page 2



## Mains Flow and Pressure Report

Hydrant locations: 222-250 Manukau Road, Pukekohe (Pukekohe Park – The Pukekohe Horse Racing Club)

Date: 23rd January 2024

Time: 12:40pm

Flow: Hydrant 2

Residual pressure: Hydrant 5

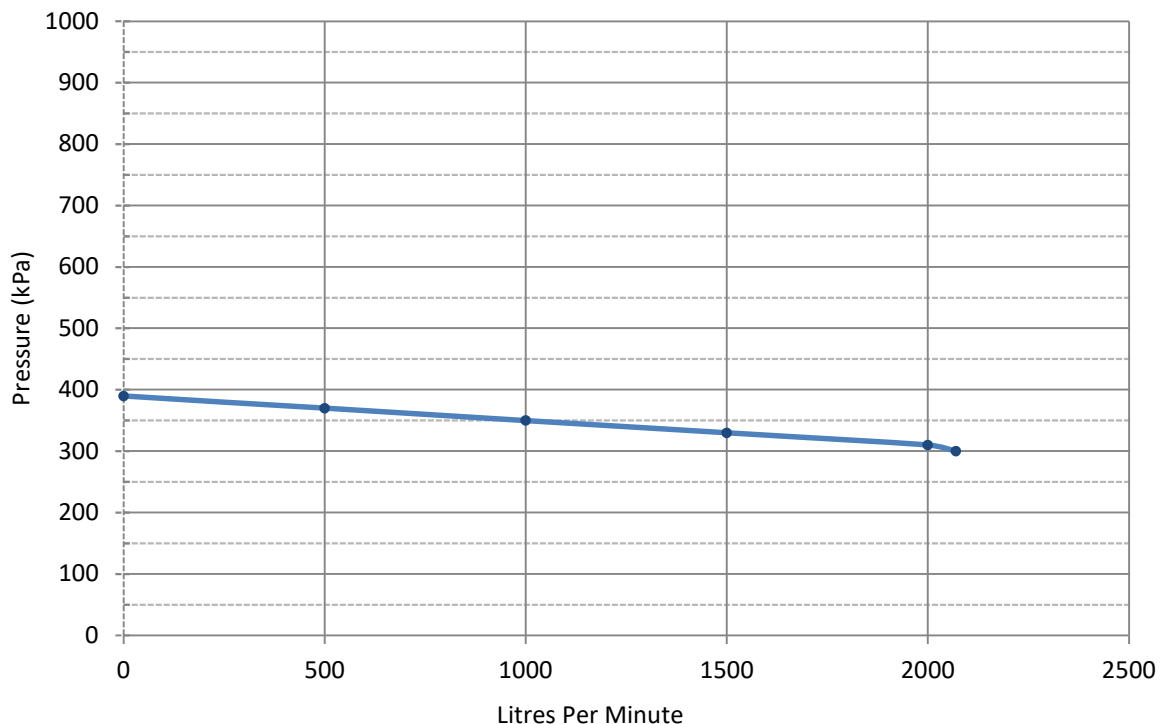
Maximum flow result: 2070Lpm at 300kPa

Test Supervisor: Anthony Blewman

Data:

Flow (Lpm)	Pressure (kPa)
0	390
500	370
1000	350
1500	330
2000	310
2070	300

Graph:



Notes: The hydrant was flowed to full capacity during testing.

Disclaimer: These results indicate the water networks performance on this given date and time.  
The networks performance is subject to fluctuations.

Hydrant Map: See page 2



## Mains Flow and Pressure Report

Hydrant locations: 222-250 Manukau Road, Pukekohe (Pukekohe Park – The Pukekohe Horse Racing Club)

Date: 23rd January 2024

Time: 12:45pm

Flow: Hydrant 3

Residual pressure: Hydrant 5

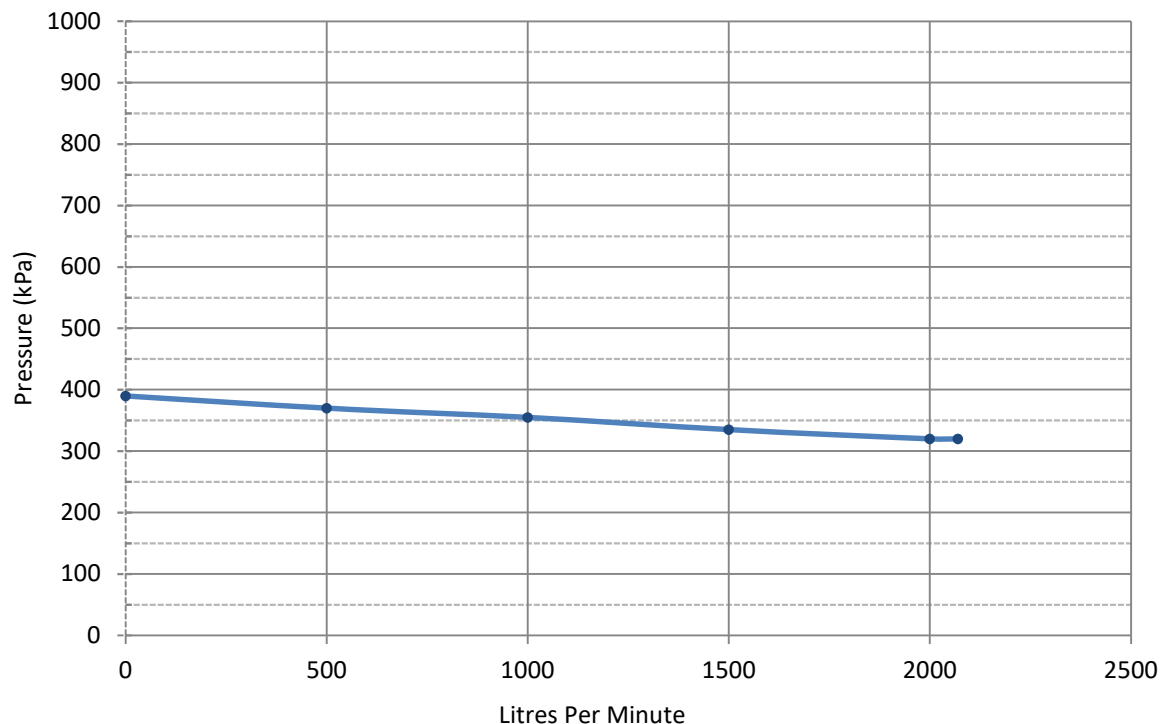
Maximum flow result: 2070Lpm at 320kPa

Test Supervisor: Anthony Blewman

Data:

Flow (Lpm)	Pressure (kPa)
0	390
500	370
1000	355
1500	335
2000	320
2070	320

Graph:



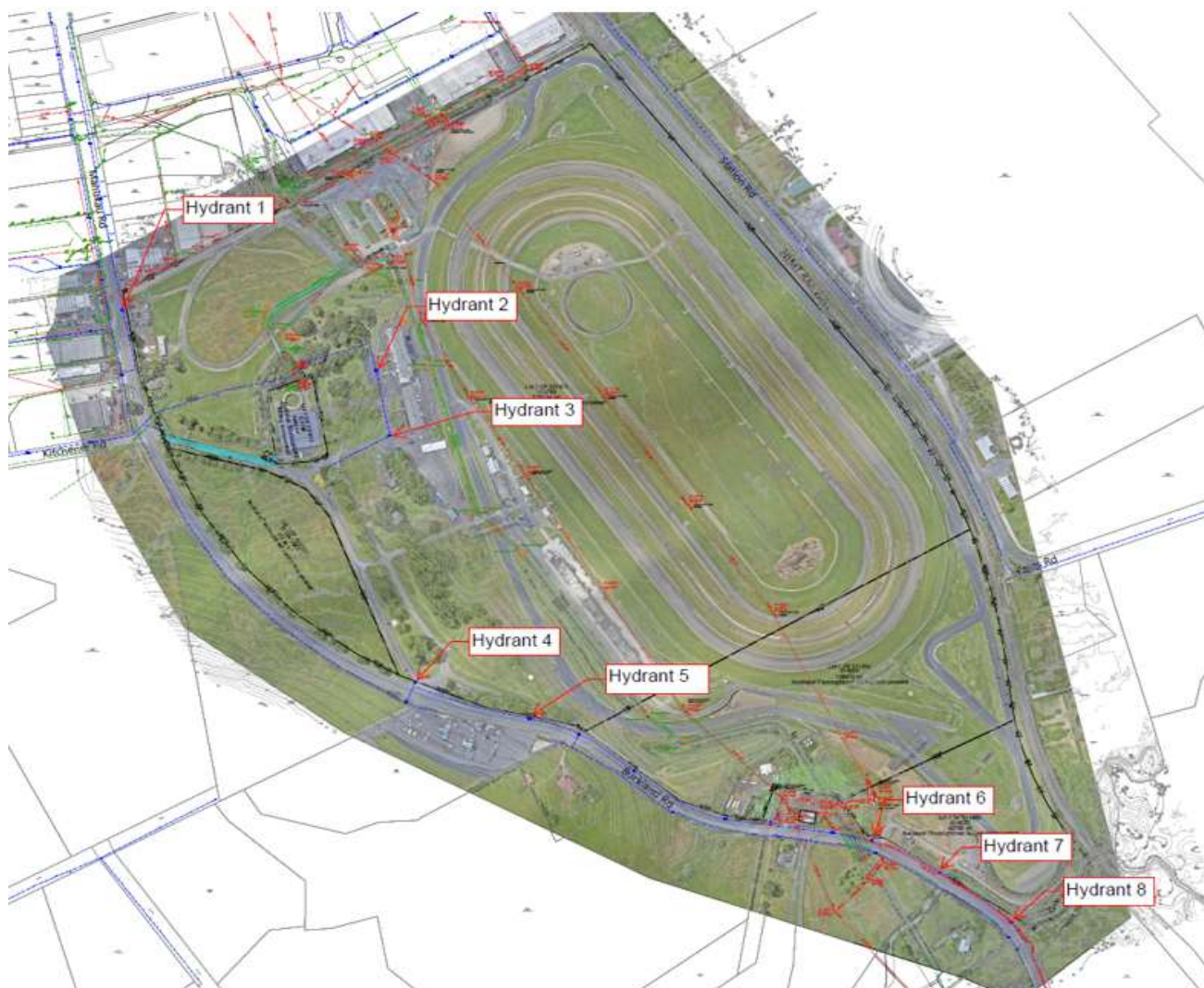
Notes: The hydrant was flowed to full capacity during testing.

Disclaimer: These results indicate the water networks performance on this given date and time.  
The networks performance is subject to fluctuations.

Hydrant Map: See page 2



## Hydrant Map



Appendix E: Wastewater Calculations





WASTEWATER FLOW ASSESSMENT

PROJECT NUMBER:	P23-057	PREPARED BY:	TM
ADDRESS:	Pukekohe Park Racecourse	CHECKED BY:	BF
DESCRIPTION:	ATR - Plan Change	DATE:	11/12/2024

ASSUMPTIONS (IF ANY)

N/A
-----

WATERCARE DRY AND WET WEATHER FLOW CALCULATIONS

	No. of dwellings	No. of People per dwelling	Litres per person per day (L/p/d)	Peaking Factor: Self Cleans. Design Flow (PDWF)	Peaking Factor: Peak Design Flow (PWWF)	ADWF (L/s)	PDWF (Self Cleansing Design Flow) (L/s)	PWWF (L/s)
Proposed Development								
Catchment 1: Manhole GIS ID 422629	400	3	180	3.0	6.7	2.50	7.50	16.75
Catchment 2: Manhole GIS ID 423413	200	3	180	3.0	6.7	1.25	3.75	8.38
						Total ADWF (L/s)	Total Self- Cleansing Design Flow (L/s)	Total Peak Design Flow (L/s)
						3.75	11.25	25.13

Appendix F: Water Supply Calculations



WATER SUPPLY FLOW ASSESSMENT

PROJECT NUMBER:	P23-057	PREPARED BY:	TM
ADDRESS:	Pukekohe Park Racecourse	CHECKED BY:	BF
DESCRIPTION:	ATR - Plan Change	DATE:	5/08/2024

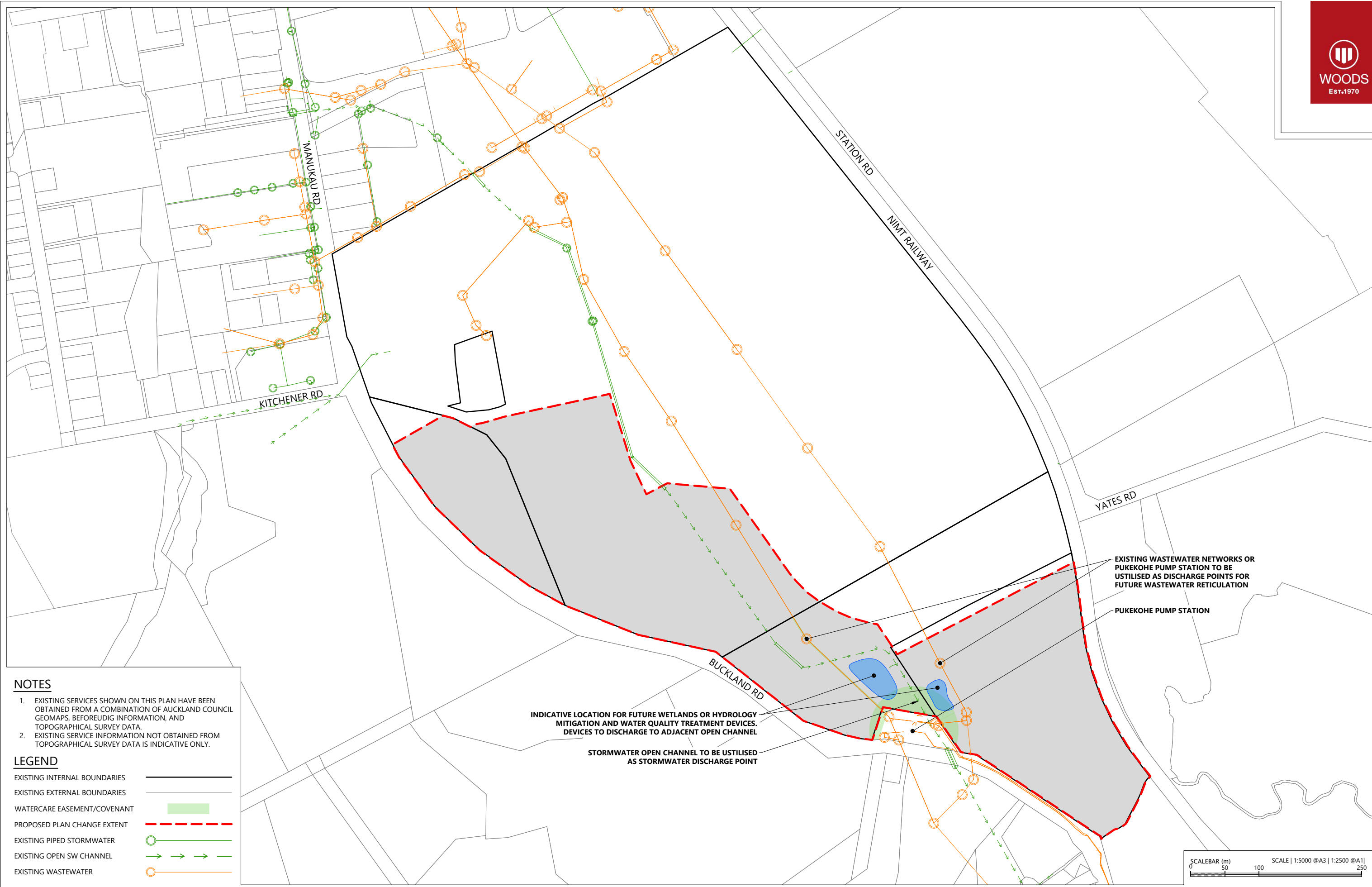
ASSUMPTIONS (IF ANY)

N/A
-----

WATERCARE DRY AND WET WEATHER FLOW CALCULATIONS

	No. of dwellings	No. People per dwelling	Litres per person per day (L/p/d)	Average Daily Demand (L/s)	Peaking Factor: Peak Day Demand	Peak Daily Demand (L/s)	Peaking Factor: Peak Hourly Demand	Peak Hourly Demand (L/s)
Proposed Development								
Catchment 1	400	3	220	3.06	2.0	6.11	2.5	15.28
Catchment 2	200	3	220	1.53	2.0	3.06	2.5	7.64
				Total Avg. Daily Demand (L/s)		Total Peak Daily Demand (L/s)		Total Peak Hourly Demand (L/s)
				4.58		9.17		22.92

Appendix G: Civil Engineering Drawings



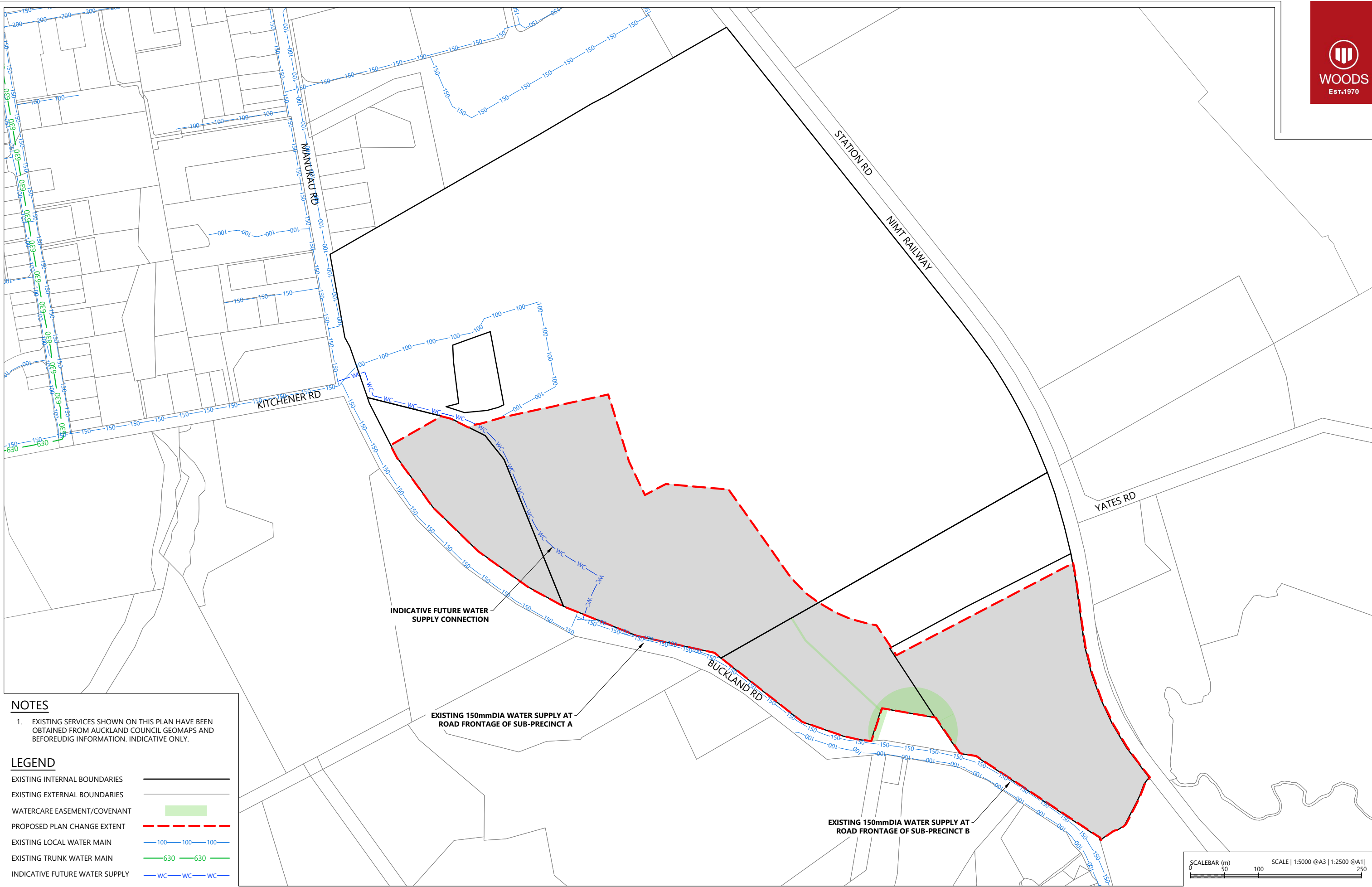
REVISION DETAILS		INT	DATE	SURVEYED	RH	222/250 MANUKAU RD PUKEKOHE 2120  WOODS.CO.NZ
1	ISSUED FOR PLAN CHANGE	TM	21/03/2025	DESIGNED	TM	
				DRAWN	TM	
				CHECKED	BF	
				APPROVED	BF	



**PUKEKOHE PARK**

STORMWATER AND WASTEWATER DRAINAGE PLAN

STATUS	ISSUED FOR PLAN CHANGE	REV
SCALE	1:5000 @ A3	1
COUNCIL	AUCKLAND COUNCIL	
DWG NO	P23-057-PC-3000-DR	



**NOTES**

1. EXISTING SERVICES SHOWN ON THIS PLAN HAVE BEEN OBTAINED FROM AUCKLAND COUNCIL GEOMAPS AND BEFOREUDIG INFORMATION. INDICATIVE ONLY.

**LEGEND**

EXISTING INTERNAL BOUNDARIES ———

EXISTING EXTERNAL BOUNDARIES ———

WATERCARE EASEMENT/COVENANT [Green Shaded Area]

PROPOSED PLAN CHANGE EXTENT - - - - -

EXISTING LOCAL WATER MAIN —100—100—100—

EXISTING TRUNK WATER MAIN —630—630—

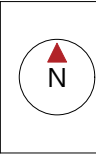
INDICATIVE FUTURE WATER SUPPLY —WC—WC—WC—

REVISION DETAILS		INT	DATE	SURVEYED	RH	222/250 MANUKAU RD PUKEKOHE 2120  WOODS.CO.NZ
1	ISSUED FOR PLAN CHANGE	TM	21/03/2025	DESIGNED	TM	
				DRAWN	TM	
				CHECKED	BF	
				APPROVED	BF	

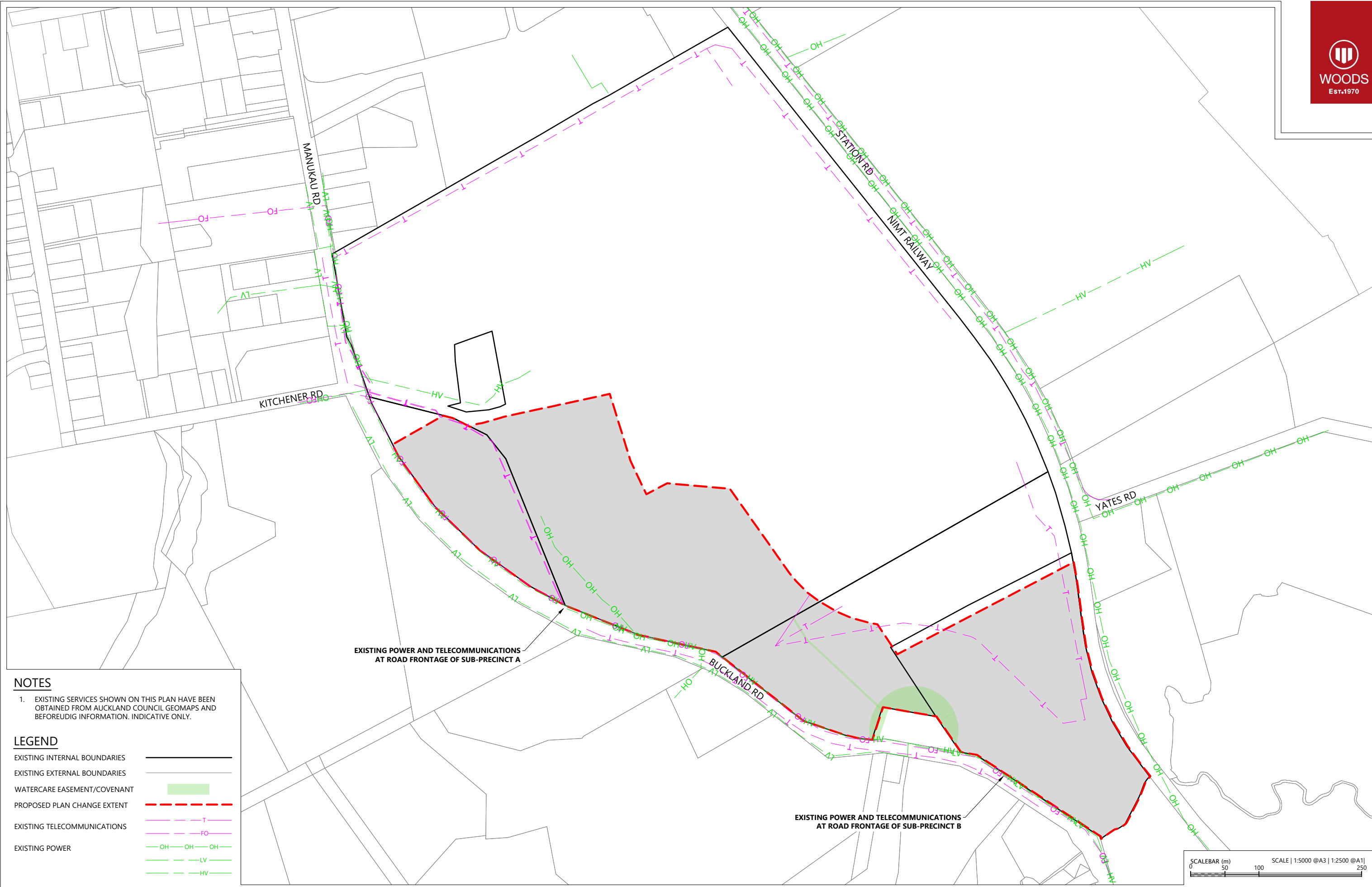


PUKEKOHE PARK

WATER SUPPLY PLAN



STATUS	ISSUED FOR PLAN CHANGE	REV
SCALE	1:5000 @ A3	1
COUNCIL	AUCKLAND COUNCIL	
DWG NO	P23-057-PC-6000-WR	



NOTES

1. EXISTING SERVICES SHOWN ON THIS PLAN HAVE BEEN OBTAINED FROM AUCKLAND COUNCIL GEOMAPS AND BEFOREUDIG INFORMATION. INDICATIVE ONLY.

LEGEND

EXISTING INTERNAL BOUNDARIES	
EXISTING EXTERNAL BOUNDARIES	
WATERCARE EASEMENT/COVENANT	
PROPOSED PLAN CHANGE EXTENT	
EXISTING TELECOMMUNICATIONS	
EXISTING POWER	

REVISION DETAILS		INT	DATE	SURVEYED	RH	222/250 MANUKAU RD PUKEKOHE 2120  WOODS.CO.NZ
1	ISSUED FOR PLAN CHANGE	TM	21/03/2025	DESIGNED	TM	
				DRAWN	TM	
				CHECKED	BF	
				APPROVED	BF	



PUKEKOHE PARK  
UTILITIES PLAN



STATUS	ISSUED FOR PLAN CHANGE	REV
SCALE	1:5000 @ A3	1
COUNCIL	AUCKLAND COUNCIL	
DWG NO	P23-057-PC-7000-UT	