

Memo

To: Damien McGahan – Aurecon

From: Chris Hardy – WSP **Date:** 8 September 2025

Subject: Private Plan Change 17 – Te Rapa North Industrial – Technical Specialist Memorandum for Section 42A Reporting

Technical Area: Water & Wastewater

Version: Final – Revision 1

Purpose

1. This memorandum has been prepared to provide technical assessment under section 42A of the Resource Management Act 1991 (RMA), in respect of water and wastewater servicing in relation to the Private Plan Change 17 – Te Rapa North Industrial (PPC17).

Introduction

2. My name is Christopher Hardy. I am a Technical Principal – 3 Waters with WSP NZ Ltd. I hold the qualification of BE (Civil) from the University of Auckland, 2003, and NZCE (Civil) from the Waikato Polytechnic, 2000. I am a Chartered Professional Engineer and a Chartered Member of Engineering NZ.
3. I have been involved in the following plan change processes in Hamilton and the Waikato:
 - a. Ruakura Development Plan Change and Board of Inquiry – Three Waters Technical Specialist for Hamilton City Council.
 - b. Rotokauri North Plan Change 7 – Water, Wastewater and Flood Hazard Technical Specialist for Hamilton City Council.
 - c. Strategic Wastewater Technical Lead undertaking wastewater network planning related to Hamilton City Council Plan Change 12 – Enabling Housing Supply.
 - d. Plan Change 26 – Residential Zone Intensification – Three Waters Technical Specialist for Waipa District Council.

Code of Conduct

4. I have read the Environment Court Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023 and agree to comply with it. I confirm that the opinions expressed in this memorandum are within my area of expertise, except where I state that I have relied on the advice of other persons. I have not omitted to consider materials or facts known to me that might alter or detract from the opinions I have expressed.

Scope

5. This memorandum covers the following:
- Consideration of the lodged PPC17 Request (PPC17 or the request) and PPC17 Supplementary Information Report (Supplementary Report), received in August 2025.
 - Relevant matters raised, and relief sought, in submissions.
 - Recommended amendments to PPC17.

Documents considered

6. The following documents have been considered in the preparation of this assessment:
- Te Rapa Private Plan Change 17 Request* (the request):
 - Te Rapa Private Plan Change Request, Harrison Grierson, December 2024.
 - Appendix 06 – Infrastructure Assessment, Harrison Grierson, December 2024 (referred to in the below as the “Infrastructure report”).
 - Appendix 10 – Illustrative Masterplan (referred to in the below as the “Masterplan”).
 - Appendix 11 – Te Rapa North Structure Plan (referred to in the below as the “Structure Plan”).
 - The Submissions listed in Table 1.

Table 1 Submissions that raise water and wastewater servicing matters

Number	Submitter
4	Sam and Elisa Coleman
7	Empire Corp and Porter Group
8	G Boddy
9	H Porter
10	Waikato District Council
13	Waikato Regional Council
14	Horotiu Farms Limited and Te Awa Lakes
16	Morth Trust Partnership

- Summary of submissions.
- The Further Submissions listed in Table 2.

Table 2 Further Submissions that raise water and wastewater servicing matters

Number	Submitter
2	Te Awa Lakes
3	FirstGas

- e. *Private Plan Change 17 Supplementary Information Report – August 2025, Harrisson Grierson Ltd.*

Analysis

Introduction

7. I have reviewed the PPC17 Request by Fonterra and its supporting Infrastructure Assessment (Appendix 06) in full as it relates to water and wastewater servicing. I have also reviewed Sections 6.3 and 6.4 of the PPC17 Request document, which summarises infrastructure servicing matters detailed in the Infrastructure Assessment.
8. The request generally aligns with Hamilton City Council (HCC) design requirements and acknowledges the current limitations of the city's water and wastewater networks as follows:
 - a. Development will require additional or new wastewater network capacity. Pukete Wastewater Treatment Plant (WWTP) upgrades are planned but not specifically allocated to the PC17 area.
 - b. Development will require water network upgrades, and servicing will be from the Pukete Reservoir without the need for an additional reservoir.
 - c. An infrastructure Plan is to be developed detailing the method of servicing and upgrades or new infrastructure that may be required.
9. The PPC17 request identifies potential interim and short-term infrastructure solutions to permit earlier development, but with a preference for upgrade and connection to existing city networks. However, it was determined following initial review that the request contained insufficient information to assess the interim solutions in any detail.
10. In addition, PPC17 did not address water allocation matters, stating that '*The interim water supply proposal could utilise existing allocations...*'¹.
11. These aspects were discussed at a technical meeting between Fonterra and HCC on 19 May 2025 and are further discussed below.
12. A Supplementary Report was provided in August 2025, which contains information relating to infrastructure servicing. The Supplementary Report primarily relates to the discussion held at the meeting on 19 May 2025. I specifically note the following:
 - a. Paragraph three of the introduction of the Supplementary Report states '*Each stage is linked to specific infrastructure requirements, providing a clearer understanding of the sequencing of works and the interdependencies between different stages and infrastructure upgrades.*'
 - b. The Supplementary Report proposes staging based on infrastructure triggers in draft Provision 3.9.3.3 (Appendix 5) which references named development stages in the 'Te Rapa North Industrial Structure Plan, UD201, in Appendix 1 of the Supplementary Report.

¹ PC17 Appendix 6 - Infrastructure Assessment, Section 6.0, Point 2.

General

13. HCC has set out its position regarding Strategic Water and Wastewater Servicing for the PC17 in a memo titled 'Strategic Water and Wastewater for the PC17 Area, 19 May 2025'. The memorandum is an attachment to this document and is referenced in subsequent sections as the 'HCC Memo'.
14. The HCC Memo states that HCC can provide strategic water and wastewater servicing to the PPC17 area. The HCC Memo notes that some limitations may arise in relation to water and wastewater consent allocations and treatment capacity, depending on the timing of the development, enabled through PPC17.
15. The HCC Memo does not consider water and wastewater network requirements, however. Network upgrades and/or new infrastructure will be required to service the PPC17/Te Rapa North Industrial Zone (TRNIZ) area.
16. The staging proposed in the Supplementary Report has variable dependencies where, for example, the implied staging for wastewater does not align with the staging for water supply. In more detail, I note:
 - a. The proposed staging order is uncertain. It is likely that individual infrastructure assessments (e.g. water, wastewater, stormwater, roading) would be required to inform subsequent discussions and agreement with HCC; and
 - b. It is not clear whether Fonterra will request HCC to consider a particular stage order, or whether Fonterra anticipate confirming staging based on a program of committed works that is yet to be developed by HCC for wider regional servicing. The latter is not likely to be practical or acceptable to HCC, and it is recommended that Fonterra propose a common stage approach that applies to all infrastructure.
17. HCC is currently moving to create a Council Controlled Organisation for water services (IAWAI). All references in this memorandum to HCC in the future sense shall be taken as meaning 'HCC and the Water CCO / IAWAI' until the relevant responsibilities of each organisation are confirmed.

Wastewater Treatment

18. The HCC Memo states that The Pukete Wastewater Treatment Plant (WWTP) is becoming constrained. The WWTP will be upgraded over the next 8-10 years to support projected growth, including the PPC17 area. The key wastewater servicing consideration is the alignment of PC17 development timing with the WWTP upgrade programme and new discharge consent (refer to the attached HCC Memo for more detail).

Wastewater Network

19. The HCC Memo states that a new strategic wastewater connection to the existing WWTP in Pukete is required. New strategic conveyance infrastructure connecting to the WWTP to the south of the Fonterra/TRINZ area, will be to service the TRINZ, and the wider sub-region as follows:
 - a. Development area in the Waikato District immediately north of Kay Road and to the south of the Waikato Expressway and East of the river (HT1).

- b. Northern Metro areas, which include Te Kowhai, Horotiu, Ngāruawāhia, and Taupiri.
- 20. This is consistent with current strategic master planning, which recommends a direct connection to the WWTP as opposed to a connection to the existing Te Rapa wastewater network and the Western Interceptor/Far Western Interceptor, due to capacity limitations.
- 21. I have reviewed the conceptual wastewater network presented in the PPC17 Infrastructure Assessment. The conceptual internal network is consistent with HCC's own concept for the TRINZ area and is noted as considering requirements for the entire TRINZ area.
- 22. Sub-regional wastewater infrastructure (likely in the form of pumped transfer pipelines) from HT1 and the Northern Metro Areas will need to pass through the Fonterra/TRINZ area but will not be available to connect to up to a point where it transitions to gravity in the vicinity of the Te Rapa Road-Pukete Road intersection.
- 23. The strategic solution south of TRINZ is currently indicated as a gravity pipeline along Pukete Road, with a lift pump station and new connection into the Pukete WWTP headworks. Staged capacity or full capacity implementation of the strategic connection, and associated timing, remains under consideration and a preferred solution is yet to be identified. No commitment has been made by HCC regarding funding and timing of the strategic infrastructure.
- 24. Final wastewater infrastructure requirements are subject to the results of ongoing network planning and modelling. HCC's wastewater network planning is considering servicing the entire TRINZ area, and sub-regional areas to the north and east of the Waikato River. The ability of Fonterra/TRINZ area to develop is contingent on the provision of the southern strategic connection to the Pukete WWTP or a dedicated connection to the Pukete WWTP.
- 25. The Supplementary Report does not consider a dedicated connection to the Pukete WWTP, so it appears to rely wholly on the provision of strategic infrastructure. HCC is yet to commit funding to build any northern strategic wastewater infrastructure, and the timing of such infrastructure is currently unknown. I note that the future strategic infrastructure will be much larger than what is required to service only the PPC17/TRINZ area.
- 26. A dedicated connection solution will be required for the PPC17/TRINZ area to develop in advance of strategic wastewater infrastructure. A dedicated connection to the Pukete WWTP would need to be funded and implemented by Fonterra and integrated, diverted, or removed once strategic infrastructure is in place. The solution, including the location, method of connection, and process to divert and abandon interim infrastructure, will need to be approved by HCC. In my opinion the connection should consider servicing the wider TRINZ area if it is implemented.

Water Network

- 27. HCC network master planning includes the PPC17/TRINZ area. HCC's water network planning considers the entire TRINZ area as it is not practical to implement water infrastructure for only the PPC17 area.
- 28. The PPC17/TRINZ area is located within a single zone currently served by the Pukete Reservoir. A future reservoir is planned in Rotokauri which will split the current zone into two. The PPC17/TRINZ area will remain in the reduced Pukete Zone.

29. There are no issues related to servicing the PPC17/TRINZ area in the long term. However, an assessment is required to determine limitations on development in the near term and/or triggers for the implementation of new trunk water pipelines. New trunk water network pipelines will need to be installed and connected to the existing network to service the PPC17/TRINZ area. New pipelines may also be required to maintain the level of service to adjacent service areas outside the TRINZ area, because of increased demand within the PPC17/TRINZ area.
30. Final water infrastructure requirements are subject to the results of network planning and modelling.

Water Treatment and Allocation

31. The HCC Memo states that the Water Treatment Plant has sufficient capacity to service the PPC17 area.
32. An application will need to be made by Fonterra to the Waikato Regional Council for a new Water Abstraction (take) Consent for the PPC17 development via the HCC Waiora WTP intake structure. The Consent must be transferable to HCC. The consent application will require a Water Management Plan for the Development, even though it will be transferred and given effect to by HCC. HCC should be consulted during the development of the Water Management Plan and the consent application.
33. It is noted that HCC will not apply for additional allocation for development outside of the normal lapse date and re-application process for a new city abstraction consent, for the following reasons:
 - a. An HCC consent application may result in conditions that HCC cannot yet deliver on, as they are unfunded. This could be in the form of unbudgeted projects (e.g. network and treatment plants) or due to extra constraints or conditions (e.g. take limitations and compliance); and
 - b. It is not practical for HCC to seek additional allocation for individual developments, of which there could be many. HCC also cannot foresee water requirements from developments outside the city or developments brought forward in the current planning timeframe, to be able to obtain a single additional allocation before the current consent expiry (2044).

Response to submissions

34. Submissions related to water and wastewater generally raise the following issues/requests.

Submission theme	Summary	Analysis and Recommendations
Servicing the entire TRINZ	Water and wastewater infrastructure should be planned to service the entire TRINZ area	<p>HCC's wastewater network planning considers the entire TRINZ area in association with wider sub-regional servicing. Strategic infrastructure from areas north and east of TRINZ will pass through the TRINZ. A connection point for TRINZ will be in the vicinity of the Pukete Road – Te Rapa Road intersection to a future strategic pipeline discharging direct to the Pukete WWTP.</p> <p>HCC will require that trunk wastewater pipelines and pump stations within PC17 are sized and located to permit extension to service the wider TRINZ. Fonterra will need to implement a dedicated connection to the Pukete WWTP to</p>

Submission theme	Summary	Analysis and Recommendations
		<p>enable development ahead of strategic infrastructure being in place. Dedicated infrastructure will need to be sized to service the wider TRINZ area, subject to the timing of development, strategic infrastructure, and treatment plant capacity.</p> <p>In relation to water infrastructure, HCC's water network planning considers the entire TRINZ area. HCC will require that trunk water pipelines within PC17 are sized and located to permit extension to service the wider TRINZ.</p>
Interim solutions	<p>There is insufficient detail provided regarding interim solutions (e.g. servicing development without connection to the HCC networks) and there is a preference from some submitters for development to connect direct to the existing Hamilton City water and wastewater networks from the outset.</p>	<p>It is understood that Fonterra is no longer pursuing interim solutions that do not rely on the HCC water and wastewater networks.</p> <p>A wastewater solution may be implemented in the form of a dedicated pipeline to the Pukete WWTP in advance of permanent strategic infrastructure, as stated above, subject to approval by HCC.</p>
Integration	<p>The wastewater network should integrate with wider sub-regional infrastructure planned to service areas north and east of the PPC17/TRINZ area</p>	<p>Refer to the points made above in relation to wastewater. A bulk water supply pipeline from the proposed Northern Water Treatment Plant (WTP) will pass through or near the TRINZ area (route to be confirmed) but will not have any connections to adjacent development areas, including TRINZ. The bulk water supply pipeline is to convey treated water from the proposed WTP to zone reservoirs only. Therefore, there is no integration other than accommodating a route for the bulk water pipeline.</p>

35. The table below summarises the submissions made in relation to the points discussed above in more detail and includes an analysis of the issue and my recommendations relating to the relief sought.

Submission Point	Summary / Relief Sought	Analysis and Recommendations
4.4 Sam and Alisa Coleman	<p>The PC17 documents outline options for the provision of infrastructure, such as a Fonterra coordinated approach with HCC, and interim/on lot solutions. This approach is represented in proposed provision 3.9.2.6 "Wastewater and water Networks" which is supported.</p> <p>Accept proposed provision 3.9.2.6</p>	<p>Accepted</p> <p>Proposed provision 3.9.2.6 requires development in alignment with network capacity, and the provision of an Infrastructure Plan.</p>
7.3 Empire Corp	<p>The submitter opposes the proposed infrastructure solutions on the basis there are no significant constraints related to three waters infrastructure and serviceability that would restrict the entire TRNIZ from being live zoned.</p> <p>Seeks revision of Chapter 3.9 to identify the infrastructure required to service the entire TRNIZ.</p>	<p>Accepted with limitations.</p> <p>HCC strategic infrastructure planning is considering requirements for the entire TRINZ area. Fonterra will be required to consider and implement/accommodate infrastructure of a suitable scale within the PPC17 area to service the broader TRINZ area (water, wastewater).</p>

Submission Point	Summary / Relief Sought	Analysis and Recommendations
8.3 G Boddy 9.3 H Porter	<p>The submitter opposes the proposed infrastructure solutions on the basis that there are no significant constraints related to three waters infrastructure and serviceability that would restrict the entire TRINZ from being live zoned.</p> <p>Seeks revision of Chapter 3.9 to identify the infrastructure required to service the entire TRINZ.</p>	<p>Enabling infrastructure outside PPC17 land will need to be sized to service the TRINZ.</p> <p>However, the following is noted:</p> <ul style="list-style-type: none"> • Constraints on wastewater treatment capacity will apply and will need to be assessed prior to connection. Staged implementation of development within TRINZ is expected, subject to treatment plan capacity, and on a first in first-served basis. Individual stage approvals to connect will not necessarily represent approval to connect for subsequent stages or other land holdings within the wider TRINZ.
16.4 & 16.5 S W Morth	<p>The submitter recommends that any permanent water and wastewater infrastructure upgrades within PC17 should be designed to support the entire Te Rapa North Industrial Zone.</p> <p>Seeks that appropriate provisions are incorporated into Chapter 3.9 to ensure that any permanent infrastructure upgrades are provided to service the entire Te Rapa North Industrial Zone.</p> <p>Seeks that appropriate provisions are incorporated into Chapter 12 to ensure that any permanent infrastructure upgrades are provided to service the entire Te Rapa North Industrial Zone.</p>	<ul style="list-style-type: none"> • Water allocation (water abstraction consent) will need to be sought by Fonterra or individual developers and transferred to HCC. I do not expect that Fonterra will seek allocation for the entire TRINZ. • Staged development requirements (including the timing of new infrastructure and connections aligning to network and WWTP capacity) are proposed to be defined and documented in an Infrastructure Plan to be developed by Fonterra in advance of the first stage of development within PPC17.
10.5 Waikato DC	<p>The submitter notes that the Northern Metro Detail Business Case future plans for Wastewater from northern and eastern areas in the Waikato District are to be pumped to Pukete wastewater treatment plan interceptor. The submitter considers that the plan change should consider opportunities for receiving future flows at the "Terminal Wastewater Pump Station" or upstream gravity network, recognising that the interceptor is not yet planned. Therefore, a traditional gravity main and rising main to Te Rapa or Horotiu should be explored to enable servicing.</p>	<p>Rejected</p> <p>HCC will require TRINZ, and specifically the Fonterra land holdings, to include corridors for regional strategic wastewater pipelines to be located. This currently includes two rising mains from the north (Horotiu, Ngāruawāhia), and one or two rising mains crossing the Waikato River from the east at the proposed Northern Bridge Crossing.</p> <p>Strategic master planning undertaken by HCC currently indicates that there is no benefit in re-lifting wastewater in the TRINZ 'Terminal WWPS', which would make it significantly larger. All rising mains will converge in the vicinity of the Te Rapa Road / Pukete Road intersection, where they will convert to gravity (detail to be finalised).</p> <p>Therefore, the TRINZ will consider sub-regional requirements, but this is unlikely to be in the form of a larger terminal WWPS within the TRINZ area.</p> <p>Connection to Te Rapa will not be acceptable to HCC due to existing constraints on the wastewater network. A dedicated connection direct to the WWTP will be required for connection to the Hamilton City Network.</p> <p>An interim connection to Horotiu may be sought by Fonterra at their discretion, and in</p>

Submission Point	Summary / Relief Sought	Analysis and Recommendations
		consultation with Waikato DC (or IAWAI if applicable).
13.7 Waikato RC	The submitter supports Objective 12.2.6 and Policy 12.2.6a, which direct that industrial development to be integrated with the efficient provision of infrastructure, including suitable transport and three waters infrastructure. This aligns with Objective UFD-O1 and Policy UFD-P2 of the WRPS in relation to the integration of land use and infrastructure planning.	<p>Accepted</p> <p>No further comment.</p>
13.11 Waikato RC	WRC supports further investigation into the three waters capacity constraints to service this deferred industrial zone and encourages further investigation into what might be staged for the required infrastructure rollout for the proposed Te Rapa North Industrial Structure Plan area, should PC17 be approved.	<p>Accepted</p> <p>These aspects are planned to be addressed in planning and hydraulic modelling that will need to be undertaken by Fonterra to define requirements for the connection of the TRINZ Area, and to define the requirements for subsequent stages.</p> <p>These investigations are proposed to be undertaken and documented in an Infrastructure Plan to be developed by Fonterra in advance of the first stage of development within PPC17.</p>
13.12 Waikato RC	The application states the long-term plan for water supply is to connect to HCC reticulation when network and water treatment plant capacity upgrades are addressed by HCC. The submitter considers that further details on the proposed short-term option should be provided to HCC as part of the Plan Change process. The submitter seeks clarification on the fully developed Plan Change area's estimated water demand due to varying figures between the Infrastructure Assessment (Appendix 6) and Section 6.4.3 of the Plan Change application. The submitter notes that the Plan Change is unclear on how interim solutions would be funded and provided for. It also noted there is no detail on alternative sources of water supply to the Plan Change area. The submitter's support for the proposed "live zoning" of the Plan Change area does not grant acceptance of any water allocation required to service the area in the future.	<p>Accepted</p> <p>It is understood that:</p> <ul style="list-style-type: none"> • Fonterra is no longer seeking a short-term water supply solution. • A water abstraction (take) consent will be sought (by Fonterra) for water to service their development area, which will be transferred to HCC and enacted as a water take via the existing HCC Waikato River water intake structure at Waiora. <p>Water supply is proposed to be via the HCC network. Staging limitations may apply, subject to network capacity and the implementation of strategic infrastructure (e.g. new reservoirs and strategic pipelines).</p> <p>Estimated water use will be defined by the Fonterra as part of an application for a new water abstraction (take) consent.</p>
13.14 Waikato RC	<p>WRC note that the Infrastructure Assessment (Appendix 6 to the plan change application) clearly states that there is no available wastewater capacity to receive additional flows within the existing pipe network in Te Rapa North and the plan change area. WRC notes that the Infrastructure Assessment further advises that any upgrades to the Pukete Wastewater Treatment Plant (PWWTP) are likely only in 10-15 years. (from 13.12)</p> <p>The plan change application identifies that the long-term proposal for wastewater is to connect to the HCC wastewater reticulation system and treat at the Pukete Wastewater Treatment Plant (PWWTP). In the interim, the plan change</p>	<p>Accepted</p> <p>It is understood that Fonterra is no longer seeking an interim on-site wastewater solution.</p> <p>The PPC17/TRINZ area will need to connect to the WWTP via a new connection, and development timing and stages will need to align with the available WWTP capacity.</p> <p>I note that the WWTP will be upgraded progressively over the next 10-15 years, not 'likely only in 10-15 years' as stated by WRC. However, the exact timing and capacity of the staged WWTP upgrades, and provision for the PPC17/TRINZ area is to be confirmed.</p>

Submission Point	Summary / Relief Sought	Analysis and Recommendations
	<p>proposes that wastewater could be managed on-site by the individual lots or a sub-catchment “communal” wastewater management system.</p> <p>WRC’s preference for the plan change area to be connected to public wastewater infrastructure, to avoid any potential adverse effects on groundwater quality in the locality.</p>	<p>The alignment of proposed stages with WWTP capacity is proposed to be addressed in an Infrastructure Plan to be developed by Fonterra in advance of the first stage of development within PPC17, and likely updated for subsequent stages.</p>
14.18 Horotiu Farms Limited and Te Awa Lakes	<p>The submitter seeks that Objective 12.2.6(a), which requires that ‘Industrial development is integrated with the efficient provision of infrastructure - Require development to be co-ordinated with the provision of suitable transport and three waters infrastructure’, is adopted as notified.</p>	<p>Accepted</p> <p>No further comment.</p>

36. The table below summarises the further submissions made in relation to the points discussed above in more detail and includes an analysis of the issue and my recommendations relating to the relief sought.

Further Submission Point	Summary / Relief Sought	Analysis and Recommendations
FS02.03 Te Awa Lakes	<p>Te Awa Lakes support Waikato District Council submission point 10.5, which states that additional work is required to develop a wastewater solution, noting that timing is not aligned, and other options should be explored.</p>	<p>While it is agreed that more work is required to develop a wastewater solution, particularly in the short term, the nature of the solution will not necessarily reflect the WDC submission, unless a connection to Horotiu is sought.</p> <p>Refer to the response for Submission 10.5 in the table under paragraph 35 above.</p>
FS03.02 FirstGas	<p>FirstGas notes the request that public wastewater servicing options be explored and that further details on proposed short-term option be provided.</p> <p>FirstGas supports this request and seeks that this be extended to include provision of plans to FirstGas where they intercept or are proximate to pipeline locations or access to pipelines.</p>	<p>Refer to the response for Submission 10.5 in the table under paragraph 35 above.</p>

Recommendations related to proposed PPC17 Provisions

37. Proposed provision 3.9.3.6 states:

- Development of the Te Rapa North Industrial Structure Plan area will be progressively enabled based on the capacity of the public network.*
- The first land use or subdivision consent application for the Structure Plan area will be accompanied by an **Infrastructure Plan** that details the methods of water supply and conveyance as well as wastewater treatment and management, including any upgrades or new infrastructure that may be required to the public network.*
- All subsequent development will refer to this plan and contribute to the completion of its proposed network, in a manner that is coordinated and does not compromise the capacity of existing service users.*

- d. *Early interaction with Council by developers is encouraged to coordinate the construction of these assets with the sequencing of urban development and to enable any assets that are private initially to be vested in future.*
38. Proposed provision 3.9.4.3(b) requiring an Infrastructure Plan has been removed by Fonterra in the Supplementary Report, which is inconsistent with Proposed Provision 3.9.3.6, which remains. Provision 3.9.3.4(b) should be reinstated.
39. Proposed provision 3.9.3.4(b) references Provision 1.2.2.30 (Te Rapa North Industrial Infrastructure Plan), which states:
- The first land use or subdivision consent within the Te Rapa North Industrial Structure Plan area (see Figure 2-22) must be accompanied by an Infrastructure Plan that contains:*
- a. *The method of wastewater treatment, including any upgrades or new infrastructure that may be required to the public network*
 - b. *The method of water supply; and*
 - c. *Stormwater management approach, including consistency with any approved Integrated Catchment Management Plan for the area.*
40. The Infrastructure Plan requirements in Provision 1.2.2.30 should, in my opinion, be expanded to contain the following regarding water and wastewater, and linked to proposed staging:

Item	Plan Requirement	Reason
a	Details regarding corridor allowances for future strategic water and wastewater infrastructure from northern sub-regional areas, and eastern areas across the Waikato River (HT1). Corridor allowances should be determined in consultation with Hamilton City Council, Waikato District Council and the Water CCO (as applicable at the time).	This is required to protect corridors for the installation of future strategic water and wastewater infrastructure within the PPC17/TRINZ area.
b	Details of water network modelling and assessments undertaken by the developer and in consultation with HCC, and the outcomes, to confirm: <ul style="list-style-type: none"> i. Network connection locations. ii. Internal trunk water pipeline sizes and connectivity. iii. External trunk water pipeline upgrades or new pipelines required to maintain the level of service for areas outside the Plan Change Area, if any. The above information shall include details of staged implementation either in the initial plan, or as subsequent updates following the initial stage.	This is required to ensure that the PPC17/TRINZ area can be adequately serviced and that adverse effects on adjacent areas of the network are mitigated, and the level of service is maintained. It will also inform the staged implementation of the water network.
c	Confirmation and detail of the water allocation secured for the Plan Change Area and to be transferred to HCC, including appendices containing all consent application documentation, supporting management plans, and the resource consent, including the associated officer's report and conditions.	This is required so that HCC has certainty regarding the abstraction of water to service the PPC17/TRINZ area.
d	Details of wastewater modelling and assessments undertaken by the developer in consultation with HCC, and the outcomes, to confirm the availability of Wastewater Treatment Plant capacity for the proposed stage timing.	This is required to confirm that proposed development stages and timing aligns with WWTP capacity.

Item	Plan Requirement	Reason
e	<p>Details of the proposed wastewater connection to the Pukete Wastewater Treatment Plant (with consideration of the proposed ultimate strategic solution), including:</p> <ul style="list-style-type: none"> i. The ultimate service catchment area and capacity of the proposed connection. ii. The proposed location and size of infrastructure (pipelines and pump station), including evidence of consultation with Hamilton City Council (or the Water CCO, if applicable) regarding the route within the WWTP and adjacent HCC-owned land, and the location and method of connection to the WWTP intake works. iii. If the proposed connection is not the agreed final strategic solution, provide details of how the infrastructure will transition to the permanent infrastructure once available, and decommissioning requirements (abandonment or removal) determined in consultation with Hamilton City Council (or the Water CCO). 	<p>This is required to ensure that the PPC17/TRINZ area can be adequately serviced with a new connection to the WWTP in advance of, or consistent with, future strategic infrastructure.</p> <p>Strategic infrastructure, including a new connection to the WWTP that would service the PPC17/TRINZ area, is not currently funded, and timing is not known.</p> <p>This requirement is recommended on the basis that development of the PPC17/TRINZ area is likely to be sought in advance of strategic wastewater infrastructure.</p>
f	<p>Details of the proposed internal PPC17/TRINZ wastewater network solution to confirm:</p> <ul style="list-style-type: none"> i. Internal trunk wastewater gravity and rising main pipeline sizes and connectivity. ii. Pump station locations and catchment areas served. iii. External wastewater transfer pipeline to the Pukete WWTP (refer to (e) above). <p>The above information shall include details of staged implementation either in the initial plan or as subsequent updates following the initial stage.</p>	<p>This is required to ensure that the wastewater network designed and proposed by the developer:</p> <ul style="list-style-type: none"> i. Is in accordance with applicable design guidelines and best practice. ii. Is efficient in terms of pipeline depth and the number of pump stations proposed. iii. Provides an integrated solution for the entire TRINZ area with consideration of future strategic infrastructure.
<p>Note 1: The initial Infrastructure Plan may present a complete solution for the wastewater and water networks through all stages. However, it is expected that the Infrastructure Plan will need to be updated at each stage; where the scale or order of development changes, to reconfirm that stage solutions are acceptable, and to confirm WWTP capacity.</p> <p>Note 2: Water allocation requirements in the Infrastructure Plan assume the consent has been obtained prior and in consultation with HCC and forms a record of the related documentation.</p>		

41. Proposed provision 3.9.3.3 in the revised Supplementary Report provisions provides a staging programme. As noted in Paragraph 16, the staging is not clear and involves multiple dependencies. I recommend that a provision be added requiring a staging plan against which water and wastewater infrastructure and treatment capacity and requirements can be assessed and defined for the Infrastructure Plan.

Conclusions

42. In my opinion, from a water and wastewater servicing perspective, the PPC17 and TRINZ area will ultimately be serviced from the Hamilton City water and wastewater networks and treatment plants.
43. Wastewater servicing within the TRINZ area is not dependent on any outside considerations, so can be planned and designed in accordance with best practice and the design requirements of HCC. However, a dedicated wastewater connection will be required if development occurs prior to strategic wastewater infrastructure which is not currently

confirmed and committed. Specific assessment will also be required to assess Wastewater Treatment Plant capacity at or near the proposed time of connection of the first and subsequent stages.

44. Water servicing within the TRINZ requires detailed assessment by the developer to confirm connection locations and sizing of trunk pipelines, because servicing the area is influenced by level of service and impacts on adjacent areas of the water network. Water supply servicing for the PPC17 area is contingent on Fonterra securing additional water allocation that can be transferred to HCC.
45. Three Waters service corridors will need to be identified in consultation with HCC and provided to accommodate future strategic pipelines passing through the PPC17/TRINZ area as follows:
 - a. Strategic wastewater rising main(s) from the north to the vicinity of the Te Rapa Road-Pukete Road intersection; and
 - b. Strategic wastewater rising main(s) and bulk water pipeline(s) from the east, via the northern bridge crossing and associated road corridor.
46. An Infrastructure Plan is recommended to document the assessment, design and staged provision of infrastructure for the Plan Change Area. An Infrastructure Plan is important to provide certainty that the PPC17 area can be adequately serviced without adverse effects on the existing and planned water and wastewater networks and avoid development in an ad-hoc manner, which could result in an inefficient infrastructure network being vested to HCC, or additional cost to be borne by HCC.
47. More certainty is required around the proposed staging, even if subject to change. South-to-north staging will be the most efficient approach for water and wastewater infrastructure. Proposed staging will form the basis of planning, modelling, and design to be undertaken by the developer, in consultation with HCC.
48. The first Stage version of the Infrastructure Plan may be able to present a complete solution for the wastewater and water networks through all stages. However, it is expected that the Infrastructure Plan will need to be updated at each stage where the scale or order of development changes, to reconfirm that stage solutions are acceptable, and to confirm WWTP capacity.
49. I could not support the proposed Plan Change without a provision for an Infrastructure Plan. An Infrastructure Plan will provide details regarding the staging and timing of infrastructure, including dedicated infrastructure to enable development prior to long-term strategic infrastructure being implemented.

Memo

Plan, Strategy, Programming – Infrastructure & Assets Group

To: Blair Bowcott – General Manager, Strategy, Growth & Planning
From: Andrew Parsons – General Manager, Infrastructure and Assets
Subject: Strategic Water and Wastewater for the PC17 Area
Date: 19 May 2025 File:

The purpose of this memo is to provide internal advice on the strategic water and wastewater servicing for the PC17 area. Note: Additional background information and initial commentary is appended to this memo.

Hamilton City Council Can Provide Strategic Water and Wastewater Servicing to The PC17 Area

This memo references the servicing solutions identified in the Infrastructure Assessment prepared by Harrison Grierson (HG Report) in support of PPC17. Staff generally supports the conclusions of the HG Report. Funding is included in the 2024-34 Long Term Plan (LTP) to enable the necessary long term servicing solutions at both the Water and Wastewater Treatment Plants.

While the exact timing of development in the PC17 area is unknown (assumed to occur in the next 2-4 years), some practical limitations may arise in relation to water and wastewater consent allocations and treatment capacity. If relevant at the time of development, identified solutions are available to support servicing.

Wastewater

A new strategic wastewater connection to the existing Wastewater Treatment Plant in Pukete is required. This is not considered a significant barrier to development.

The Pukete Waste Water Treatment Plant (WWTP) is currently approaching constraints for some parameters but is undergoing major upgrades, funded over the next 8-10 years, to support projected growth across Hamilton, including the PC17 area and Northern Metro Communities (i.e. Taupiri, Hopuhopu, Ngaaruawaahia, Horotiu, Te Kowhai).

The main wastewater discharge consent is due for renewal in the next two years. This is a major consent and, if granted by Waikato Regional Council, will provide for the city and the PC17 area.

The key wastewater servicing consideration is the alignment of PC17 development timing with the WWTP upgrade programme and new discharge consent.

It is essential that the Plan Change includes rules, policies, or objectives to assess WWTP design capacity and consent discharge limits at the time of development. Consideration must also be given to potential temporary reductions in WWTP capacity during the upgrade works. If constraints are identified, mitigation could include the temporary assignment of constrained parameters (eg: nitrogen) to the city by the applicant. Other interim solutions outlined in the HG Report are also supported.

Water

The Water Treatment Plant has sufficient capacity to service the PC17 area.

New strategic connections to the existing water network at Onion Road and near the Pukete Reservoir are required. These are not considered significant barriers to development.

Water allocation is a key consideration. Additional consent allocation may be required, depending on future growth and/or implementation of city-wide universal water meters.

Future development in PC17 must include as a minimum:

- On site storage/buffer tanks (for firefighting and peak demand management);
- No high-use wet industry (ie; $>15 \text{ m}^3$ per day water usage per industrial activity);
- Rainwater harvesting and reuse
- Volumetric metering

The Plan Change must include provisions that enable assessment of city water allocation availability at the time of development. If additional consent allocation is required, mitigation could involve temporary allocation assignment to the city. Alternatively, Fonterra may choose to secure a new water allocation consent for the PC17 area to futureproof the allocation. Any new consent would need to be obtained on consent conditions acceptable to the city and, be transferred to the city.

Staff note that even with universal metering, existing city water allocation will be insufficient to support all future development areas within the city. Additional water allocation consents will be required within the next 10 years, regardless of PC17.

Partnership Contract

It is recommended that a Partnership Contract be entered into with Fonterra regarding infrastructure.

This Partnership Contract shall:

- Establish a joint position on infrastructure critical to PC17 and protect servicing needs of the wider Future Proof settlement pattern;
- Include mutual support for the city's wastewater discharge consent application or any new water allocation consent with a commitment not to oppose;
- Cover temporary consent assignment processes between Fonterra and the city;
- Allow for city upsizing or extension of Fonterra-funded infrastructure on an incremental basis to support servicing beyond PC17.

Broader City Considerations

The PC17 area is likely to take at least 10 years to fully develop after the plan change becomes operative. Also, development will require resource consents and water/wastewater network connections to be built.

Based on Hamilton City Council's current growth forecasts (assuming city-wide water metering), a new water allocation consent will be required by mid-2030s. This is currently driven by overall city growth and is not solely a result of PC17.

I note that the three waters activities are currently managed by Hamilton City Council, but responsibility may potentially transfer to a Council-Controlled Organisation (CCO) under a new water delivery model to be decided on 29 May 2025.

Risk Assessment

The risk of supporting this Plan Change is considered low for the following reasons:

1. Budgeted investment in the Pukete Wastewater Treatment Plant and the demand assumptions behind the business case;
2. Staged development timing of Plan Change 17;
3. Ability to manage land use and associated water/wastewater demands through plan change provisions;
4. Existing regulatory tools (eg. connection approvals);
5. Growth projections correlate well with actual demand, so rezoning is unlikely to increase total citywide growth.

These conclusions assume appropriate controls are implemented to restrict high water use or wet industries until long-term servicing is secured.

Next steps

Staff will work with Fonterra to formalise infrastructure triggers and servicing solutions before the Plan Change hearing, including:

- i. Staging of PC17 aligned to WWTP upgrades and water allocation capacity;
- ii. Controls to manage the type of industrial water use and discharges;
- iii. Mitigation actions that Fonterra can undertake to reduce infrastructure impacts.

Stormwater and detailed local water and wastewater servicing will be addressed separately.

A Partnership Contract will be developed.



Name: Andrew Parsons, GM Infrastructure and Assets

Date: 21 May 2025

Background Information

On 17 December 2024, Fonterra lodged a private plan change request with Hamilton City Council. The private plan change applies to approximately 91ha of land in Hamilton's northeast, currently zoned as Deferred Industrial Area. Fonterra has requested a change to Hamilton's District Plan to rezone 91ha of land surrounding their Te Rapa dairy manufacturing site to Te Rapa North Industrial Zone.

Following internal review, the request was accepted for processing as a private plan change under Chief Executive delegation on 22 January 2025. The private plan change was publicly notified on 23 April 2025. Submissions close on 23 May 2025.

In 2019, an industrial subdivision for approximately 20ha was sought on Onion Road within the Te Rapa North Deferred Industrial Area (adjacent to State Highway 1C). Construction of these industrial premises is underway now (this is referred to as the Empire Block) and will be home to companies such as Delegates (see Figure 1), consented in 2021.

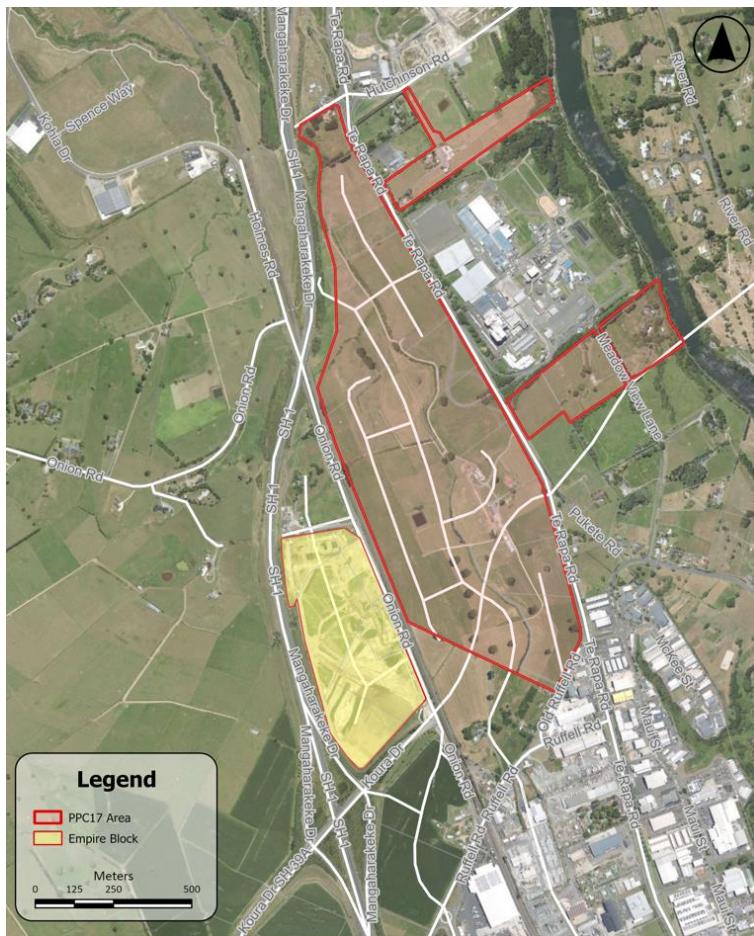


Figure 1 – PPC17 Area Plan Onion Road (Empire Block)

Plan Change 17 – Infrastructure Report – Harrison Grierson

The critical challenges outlined in this memo are acknowledged in the Harrison Grierson Infrastructure Report submitted as part of the Plan Change application. Possible short-term interim solutions are also noted.

The options presented in the report are summarised below. HCC's view on the options is shown in *italics*.

Wastewater Treatment Long term solution – Serviced through the Pukete WWTP with new reticulated networks to the plant.

This solution aligns with HCC preferred servicing solution.

Wastewater Treatment Interim (Short-term) solution – Two options are presented in the report.

- 1) individual on-lot treatment and land disposal systems. These could be retained permanently or be decommissioned, and flow diverted to the PWWTP when capacity is available.
- 2) a larger package treatment plant that could be converted to a major pump station to divert flow to the PWWTP when capacity is available.

While not a preferred servicing solution, this may enable some development to occur ahead of the Wastewater Treatment Plant upgrades or new consent being completed. The benefits of implementing short-term solutions will depend on the time that the area takes to develop. HCC will look to work with Fonterra's representatives to frame up plan provisions to implement these types of initiatives.

Water Supply Long term solution – The report notes that HCC have advised that water will ultimately be supplied from the HCC network.

While this aligns with staff expectation and preference, there is no comment made on how water allocation to service the area may be addressed in the long-term.

Water Supply Short Term solution – Two options are described.

- 1) that Fonterra would investigate potential alternative sources of water supply. The report notes that potential alternative sources have been identified and area feasible and that they anticipated further details of these sources will be worked through and shared as part of the plan change process if needed. Water storage is also proposed as part of this solution.
- 2) Reservoir and pump system vested to HCC with the system fed from the HCC network.

The first option provides a temporary solution to the water allocation challenges. A temporary assignment of a small volume of Fonterra's own consented abstraction consent would address the issue.

Option 2 ignores the water allocation constraints. While not the preference of HCC staff, particularly given a viable short-term solution exists, elected members may wish to consider this option either with limits imposed (e.g. imposing limits on total water take per lot, or for the overall area. The limits could be based on an equivalent residential or light industrial water demand for example, in addition to on-lot water storage requirements (e.g. 24 hours on-lot storage), rainwater harvesting, grey water reuse, and potential for future treated wastewater or recycled water reuse.

Elected members may also wish to consider this option without any water consumption limits. It is noted that currently under the Three Waters Connections Policy several provisions are set out for High Water Users (defined as "A business or non-domestic entity that uses more than 15m³/day of water from Council's water supply network"). These provisions include Council requiring a Supply Agreement that sets out the terms of the water services provided if a connection supplying more than 15m³

water per day is approved. Decisions to approve new High Water Supply Agreements are made by Elected members. The risks and implications of new High Water User Agreements are outlined in the reports provided to Council for consideration. Risks associated with this approach include:

- *Potential precedent setting for future “deferred or future” land zones who apply to be live zoned. They same approach could be expected.*
- *Potential “consume” all existing allocation and not be able to service already live zoned developments within the city,*
- *Could accelerate the need to obtain new or increased water abstraction consent. This could trigger the need for unplanned investment in water meters in order for HCC to demonstrate that it is using water efficiently. Historically, this has been a considerable risk. If Council proceed with the CCO, the installation of water meters citywide is proposed to be implemented within five-years. As such this may be a lower risk to council.*

Other Water and Wastewater Management Proposals – The report recommends there be a moratorium on wet industry within the development, and water-sensitive design measures such as grey-water reuse be included in the requirements of the developers. These measures will reduce the demand for water and wastewater treatment.

HCC fully support these proposed measures. In addition, HCC would like to explore the potential future proofing of infrastructure and reticulated services to enable the use of recycled wastewater in the future. HCC will look to work with Fonterra’s representatives to frame up plan provisions to implement these types of initiatives.

For water supply, additional on-lot rainwater reuse tanks and water sensitive design would further reduce demand on water takes and networks.

Fonterra Correspondence, 29 April 2025

On 29 April 2025, Fonterra emailed HCC (Attachment 1) noting that their preference is that water and wastewater capacity is provided by the Council’s network. The reasons outlined are summarised below:

1. Council's role in Water Services:
 - The Council is responsible for delivering water services within its territorial boundaries.
 - It has the necessary expertise, knowledge, and capability to provide these services to the PC17 area.

HCC staff agree

2. Concerns about Fragmented Delivery:
 - Water services should not be delivered by individual agencies or landowners.
 - Fragmented and duplicative infrastructure can lead to suboptimal outcomes for Hamilton city.

HCC staff agree

3. Future Water Delivery Arrangements:
 - The Council is consulting on future water delivery arrangements.
 - The preferred option is to establish a joint waters company with Waikato District Council.

- There is uncertainty about future water service delivery and funding until the new arrangement is confirmed.
- Water service delivery for PC17 should remain flexible to accommodate future solutions.

HCC staff agree noting a decision about future water service delivery and funding will be made in June 2025.

4. Fonterra Te Rapa Manufacturing Site:

- The site requires water and wastewater services to continue operations.
- These services have been authorized after extensive regulatory processes and significant environmental upgrades.
- Changes to these arrangements would create considerable uncertainty for Fonterra and are not preferred.

HCC acknowledges Fonterra preference and agrees that in the long term the consent arrangements secured for the Te Rapa Manufacturing site should not create uncertainty for Fonterra. However, HCC believes that a temporary assignment of water allocation would overcome an existing issue.

5. Te Rapa North Growth Node:

- The growth node extends beyond the PC17 site.
- Infrastructure solutions should consider the wider network and be scalable for future developments within the deferred industrial land of the growth node

HCC agrees, particularly in light of the potential for CCO with Waikato District Council. The long-term wastewater servicing solution through the Northern Metro WW Detailed Business Case and the Pukete WWTP anticipate servicing the Northern Communities at Pukete. Pipeline alignments and sizing will consider servicing needs for those areas.

For water supply, the potential to feed the area from the Waikato DC water supply as well as HCC water supply exists. In the longer term a new Northern water treatment plant and associated water take has been identified to meet the future needs of Hamilton and the broader Northern Metro area, which will provide servicing for the overall growth node and beyond.