

BEFORE AN EXPERT CONSENTING PANEL

IN THE MATTER of the Fast-track Approvals Act 2024 (the **FTAA**)

AND

IN THE MATTER of Ashbourne (FTAA-2507-1087)

**STATEMENT OF EVIDENCE OF GUNASANTHA (SANTHA) AGAS
ON BEHALF OF THE MATAMATA-PIAKO DISTRICT COUNCIL**

Water and Wastewater

Dated: 11 November 2025

**BROOKFIELDS
LAWYERS**
A M B Green
Telephone No. (09) 979 2172
PO Box 240
DX CP24134
AUCKLAND

BROOKFIELDS
LAWYERS

1. SUMMARY OF EVIDENCE

- 1.1 The Ashbourne Residential Development infrastructure report prepared by Maven Waikato Limited was reviewed to assess the adequacy of proposed water and wastewater servicing and the effects on Council's existing infrastructure.
- 1.2 Modelling assessments were undertaken for both water and wastewater networks. The review concluded that while services can be provided to the development, some network upgrades will be required, and further assessments are recommended to confirm the extent of those upgrades.

2. INTRODUCTION

- 2.1 My full name is **Gunasantha Agas**.
- 2.2 As part of my role as Infrastructure Strategy and Policy Team Leader at Matamata-Piako District Council (MPDC) I have reviewed the infrastructure report for the Ashbourne Residential Development.
- 2.3 My qualifications and relevant experience are set out in **Appendix 1**.
- 2.4 In preparing this evidence, I have reviewed:
 - (a) The *Infrastructure Report – Ashbourne Residential Development* prepared by Maven Waikato Limited.
 - (b) The hydraulic and water modelling assessments commissioned by MPDC.
 - (c) Correspondence and supporting technical information related to the development proposal. I attended a site visit to the proposed Ashbourne Residential Development area on 21 August 2025 to understand the local infrastructure context and network connection points.

3. CODE OF CONDUCT

- 3.1 Although this matter is not before the Environment Court, I confirm that I have read the Code of Conduct for Expert Witnesses outlined in the Environment Court's Practice Note (2023) (Code) and have complied with it in preparing this statement of evidence. If a hearing is held, I also agree to follow the Code when presenting evidence to the Panel.

3.2 I confirm that the issues addressed in this brief of evidence are within my area of expertise, except where I state that I rely upon the evidence of other expert witnesses. I also confirm that I have not omitted to consider material facts known to me that might alter or detract from my opinions.

4. EVIDENCE

4.1 Please refer to my report in **Appendix 2**, which addresses the following matters:

- (a) **Wastewater Network Review** – including hydraulic modelling assessment.
- (b) **Connection Points and Staging** – assessment of connection points and required upgrades to the existing infrastructure.
- (c) **Proposed Pump Station and Rising Main** – impact of proposed pump station and rising main on the MPDC network.
- (d) **Water Supply Assessment** – scenario modelling results, and identification of required network issues.

4.2 The key observations from my report (Appendix 2) are:

- (a) The wastewater modelling was based on a 6-month ARI rainfall event. Some discrepancies were noted between the report and those used in modelling. Further assessment is required to confirm upgrade requirements.
- (b) The proposed wastewater reticulation layout appears adequate, subject to confirmation.
- (c) For the water supply, the modelling confirmed compliance with RITS design standards. Several development scenarios were tested, showing that:
 - (i) Stage 1 of the residential area can proceed without upgrades to the existing MPDC network, but internal pipe upgrade or a booster pump is required to meet FW2 fire flow.

- (ii) Pipe upgrades along Peakedale Drive are required before Stage 2 development.
- (iii) Additional upgrades are needed for later stages.
- (iv) A potential connection from a dedicated supply main could reduce upgrade requirements, though this was not part of the initial modelling. Modelling will need to be carried out and further assessments undertaken to confirm.

5. CONCLUSION

- 5.1 Based on the review, water and wastewater services can be provided to the Ashbourne Residential Development subject to necessary network upgrades. Further detailed assessments are required to confirm the exact scope and timing of those upgrades to ensure sufficient capacity within MPDC's existing infrastructure.

Santha Agas

11 November 2025

APPENDIX 1

QUALIFICATIONS AND EXPERIENCE

1. My name is Gunasantha Agas. I hold a Master of Science degree (Civil Engineering) from Moscow Institute of Civil Engineering and Master of Science degree in Urban Engineering from Loughborough University of Technology in the UK. I am also a Member of Engineering New Zealand.
2. I have over 30 years' experience in civil engineering and over 19 years' experience in water, wastewater and stormwater (3 waters) engineering in New Zealand.
3. From March 2021 to August 2024, I worked as an Asset Engineer Utilities in Matamata Piako District Council (MPDC).
4. From September 2024 to date I worked as Infrastructure Strategy and Policy Team Leader.
5. I worked in Colombo Municipal Council as a civil engineer from 1983 in different positions until migrating to New Zealand in 2003.
6. I have held senior positions in planning, managing and service delivery of 3 waters services in Whakatane District Council and Napier City Council before joining MPDC.
7. My particular experience in 3 waters covers:
 - Strategy development,
 - Master planning including growth, risk management and resilience,
 - Asset management planning,
 - Network management.
8. While I was working in Whakatane District Council and Napier City Council, I was involved in District Plan changes and feasibility studies on growth from a 3 waters perspective.
9. In my current role at MPDC, I have been involved in the following activities:
 - Advice on development and subdivision applications from a stormwater perspective,
 - Advice on plan changes from a 3 waters perspective,
 - Project managing of the development of strategies for water conservation, 3 waters operational resilience, wastewater inflow and infiltration reduction,
 - Project managing water and wastewater masterplans for MPDC,
 - Providing planning and technical inputs into various MPDC documents and submissions from a 3 waters perspective.

APPENDIX 2: WATER AND WASTEWATER SERVICES MEMORANDUM

Appendix 2

Background

1. The purpose of this report is to provide comments on the feasibility of servicing the proposed Ashbourne development from water supply and wastewater servicing perspectives.
2. In preparing this expert report, I used information in the Infrastructure Report (IR) prepared by Maven Consultants, meetings I had with developer's representatives, high level hydraulic modelling assessments carried out using MPDC's calibrated water and wastewater models by MPDC's consultants and my personal experience and knowledge of the MPDC water, wastewater and stormwater systems.
3. The Infrastructure Report prepared by Maven Consultants will be referred to as IR in this report.

Water

General

4. The proposed Ashbourne development is situated outside of the current water supply network but adjoining MPDC's water network.
5. Currently MPDC has developed a water masterplan for Matamata water supply based on projected demand in the next 30 years. The masterplan has identified network upgrade requirements due to the growth in next 30 years in the present District Plan growth zones. The Ashbourne development has not been included in the masterplan as it is not in the growth zones of the District Plan.
6. MPDC's current resource consents to take water from groundwater and surface water allows MPDC to take water from these sources to meet the next 30-year demand. MPDC has a plan to introduce universal water metering in Matamata. The expected reduction in water use due to this planned work and other water conservation measures has a potential to use the existing consented amount of water beyond next 30 years for the public water supply,

Proposed Water Supply Network within the Development

7. The IR proposes a distribution network of pipes from DN250 PE to DN50 PE (nominal diameter). The IR also proposes a booster pump station within the development to address flow and pressure issues. A detailed assessment of the proposal has not been

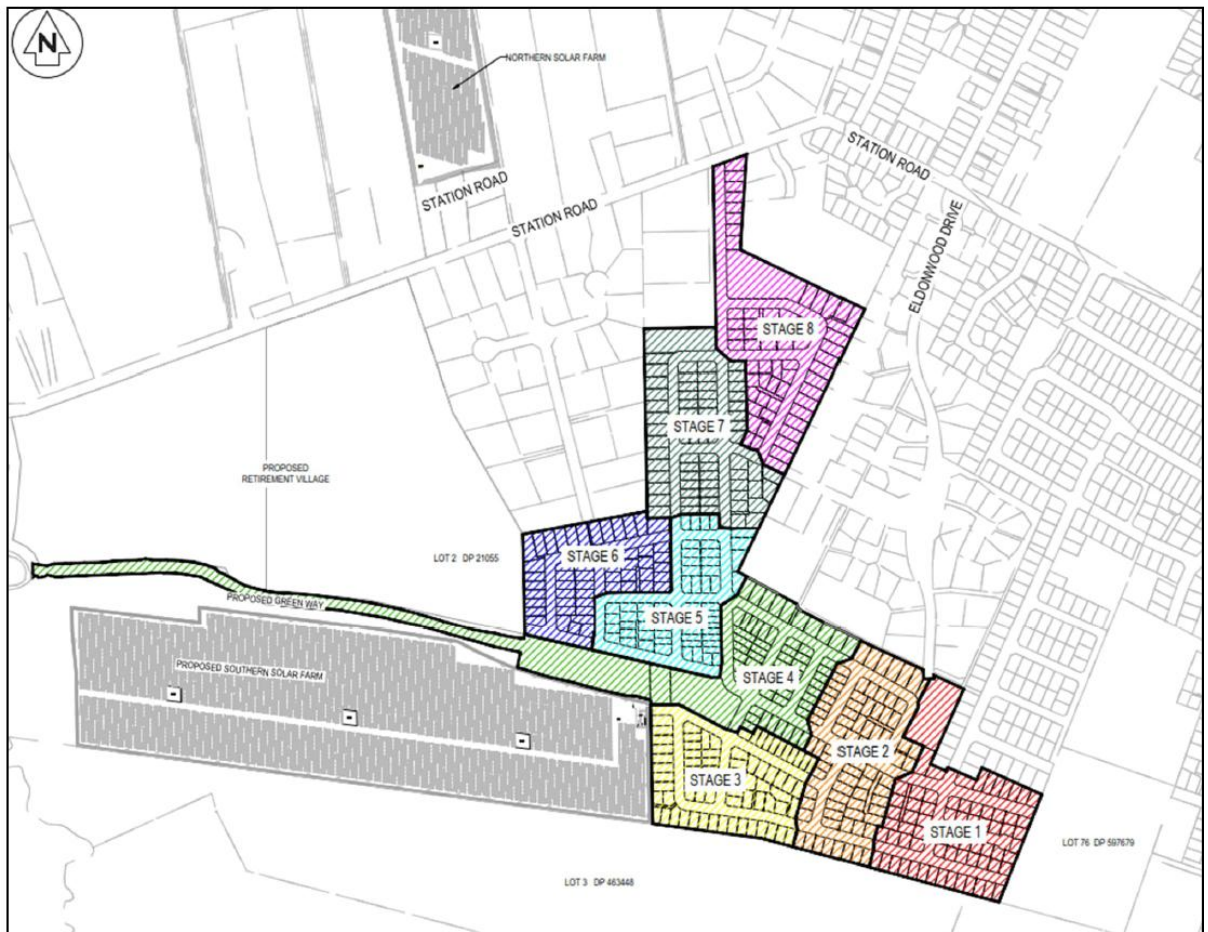
carried out. However, the proposal appears to be reasonable subject to further assessments.

8. In the IR, water infrastructure is proposed to be installed as the stages progress to service the new dwellings. This is an acceptable method in large subdivisions.
9. The detailed design of the water network has to be submitted to MPDC for approval before each stage and construction.
10. The proposed booster pump station has a single pump. Two pumps are preferred in water pump stations to provide resilience.
11. According to initial modelling assessments carried out as described in the following section, the proposed internal network will have issues with firefighting capacity. However, this issue can be addressed by installation of the booster pump station.

Water Supply Modelling

12. A high-level water modelling assessment using MPDC's calibrated hydraulic model has been carried out to understand the impacts of the proposed development on MPDC's existing and proposed water infrastructure. Water demand provided by Maven Consultants for each stage was used for the modelling.
13. Three scenarios were considered for residential developments as agreed with Maven Consultants, including a base scenario for the modelling. Information provided by Maven Consultants for each stage of the development were used for modelling.

14. A map of the development stages used for modelling is shown below:



15. A summary of the scenarios, and the results are shown in the following table.

Scenario	Description	Results
Base scenario (year 2053)	Ashbourne development is not connected and masterplan demand figures used until 2053	Existing network capacity is sufficient to meet minimum flow and pressure except some fire hydrants will fail to meet firefighting criteria FW2
1	All stages of residential development	Existing infrastructure needs upgrades to meet minimum level of service and firefighting capacity in the network. These upgrades to the public network can be staged as the staged development progresses. Upgrades required for all stages have not been identified in this assessment.

2	Residential stage 1	Existing public infrastructure is sufficient to provide minimum level of service. However, some supply pipes exceed the head-loss criteria and Internal reticulation of the development fails to provide FW2 fire flow.
3	Residential stage 1 and stage 2	Existing public infrastructure is sufficient to provide minimum level of service with some minor head losses. However, FW2 fire flow requirements within the development will not be met without upgrades. Further upgrades are required to the existing MPDC network before subsequent developments occur.

16. The overall outcome of the high level modelling indicates that the full residential development can be supplied from Matamata Water Supply subject to staged pipe upgrades in the public network. The fire flow issue within the development can be resolved by the introduction of a booster pump station as mentioned previously.
17. Further detailed assessments must be carried out to determine the network upgrade options before proceeding with detailed designs.

Wastewater

General

18. At present, there are no public wastewater systems installed in the Ashbourne development area. However, the proposed development is situated adjoining the existing public wastewater infrastructure and can be connected.
19. Currently MPDC has developed a draft wastewater masterplan for the Matamata wastewater scheme, based on projected growth in the next 30 years. The masterplan has identified network upgrade requirements due to growth over the next 30 years, within the present District Plan growth zones. The Ashbourne development has not been included in the masterplan as it is not in the growth zones of the District Plan.
20. Currently, the wastewater treatment plant has compliance issues.
21. MPDC has carried out current wastewater treatment plant capacity assessment to identify upgrade requirements to meet current and future (30 years) consent compliance requirements and demand. A report has been produced with recommendations.

22. Based on the recommendations of the report, a project is underway to upgrade the existing treatment plant. This project is expected to be completed in 2026. The upgraded treatment plant will have capacity to service the next 30-year demand.

Proposed Wastewater Network within the Development

23. The IR proposes a network of pipes and two pump stations to convey wastewater from the development to the public wastewater network. A detailed assessment of this proposal has not been carried out. Conceptually, the proposal seems to be reasonable.

24. In the IR, wastewater reticulation is proposed to be installed as the stages progress to service the new dwellings. This is an acceptable method in large subdivisions.

25. The detailed design of the wastewater network has to be submitted to MPDC for approval before each stage and construction.

26. Three connections to the public network are proposed in the IR. These are two gravity connections and one pumped connection. These connections are acceptable subject to some upgrades downstream of public network, over and above what is proposed in the masterplan to service future growth.

27. A high-level network hydraulic modelling assessment has been carried out using MPDC's calibrated wastewater model to understand the potential impacts on the public network due to discharge from the development. This is discussed further in the following wastewater hydraulic modelling section.

28. Further assessments have to be carried out to confirm required upgrades to the existing network based on proposed discharge points and flows from the IR.

29. The proposed pump station design standards comply with RITS.

Wastewater Modelling

30. A high-level wastewater modelling assessment has been carried out to understand the impacts of the proposed development on MPDC's existing and proposed wastewater reticulation infrastructure.

31. Four scenarios were considered for residential developments, as agreed with Maven Consultants. These scenarios are given in the following table:

Scenario	Eldonwood Pump station Connection	Burwood Road Connection	Sheffield Street Connection
1	50 Lots, Development area 1.65 ha	462 Lots, Development area 16.24 ha	N/A
2	100 Lots, Development area 3.30 ha	412 Lots, Development area 14.59 ha	N/A
3	N/A	384 Lots, Development area 12.66 ha	128 lots, Development area 5.23 ha
4	N/A	512 Lots, Development area 17.89 ha	N/A

32. Modelling assessment was carried out using dry weather and 6-month ARI rainfall event.
33. Under all scenarios a 150mm existing gravity main along Burwood Road will be surcharging due to Ashbourne development. Under Scenario 3, a section of pipe in Manuka Street is surcharging. Under Scenarios 1 and 2, additional storage of 15m³ and 20m³ respectively need to be provided.
34. A preferred scenario or sizing of pipes for required upgrades was not carried out with the modelling assessment.
35. The proposal in the IR needs to be further assessed to confirm the existing network upgrades.

Conclusions

Water

36. Water can be supplied to the full Ashbourne development subject to upgrades to the existing MPDC water reticulation infrastructure to mitigate adverse impacts on the MPDC water system due to additional demand from the development. Some of these upgrades are over and above what has been proposed in the current masterplan. Further hydraulic modelling assessment needs to be carried out to identify upgrade requirements after the Stage 2 development.

37. Upgrades to the existing water infrastructure can be carried out in stages as the development progress.

Wastewater

38. Wastewater from the Ashbourne development can be connected to MPDC's network subject to some upgrades to the existing infrastructure.

39. A long section of 150mm gravity wastewater pipe along Burwood Road needs to be upgraded to mitigate pipe surcharge.

40. Additional 20m³ storage must be provided at the Eldonwood wastewater pump station.

41. Further modelling assessment needs to be carried out to understand the impact on the existing wastewater infrastructure, as the proposal in IR deviates slightly from the modelling assumptions.

Santha Agas

7 November 2025