

BEFORE THE FAST-TRACK EXPERT PANEL

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

AND

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

JOINT STATEMENT OF EXPERT WITNESSES:

STORMWATER AND GROUNDWATER

4 March 2026

INTRODUCTION

1. Expert conferencing on the topic of stormwater and groundwater took place online via Microsoft Teams from 7.00am-11.00am on 4 March 2026.
2. The conference was attended by the following experts:
 - (a) Dean Morris, Civil (“DM”) (Applicant);
 - (b) Will Moore, Civil (“WM”) (Applicant);
 - (c) Mitchell Smith, Civil (“MS”) (Applicant);
 - (d) Clare Houlbrooke, Hydrogeology (“CH”) (Applicant);
 - (e) Fraser McNutt, Planning (“FM”) (Applicant);
 - (f) Ben McKay, Geotech (“BM”) (Applicant);
 - (g) Kori Lentfer, Geotech (“KL”) (Applicant) (attended from 8:30am-11:00am);
 - (h) Dave Sullivan, Geotech (“DS”) (Applicant) (attended from 7:00am-8:30am);
 - (i) Megan Wood, Stormwater (“MW”) (Waikato Regional Council);
 - (j) Sheryl Roa, Planning – consent conditions (“SR”) (Waikato Regional Council);
 - (k) Bronwyn Rhynd, Stormwater (“BR”) (Matamata-Piako District Council);
 - (l) Tony Cowbourne, Groundwater / Geology (“TC”) (Matamata-Piako District Council);
 - (m) Marius Rademeyer, Planning – consent conditions (“MR”) (Matamata-Piako District Council); and
 - (n) Jon Williamson, Hydrogeology/Groundwater (“JW”) (appointed by the Expert Panel) (JW had to leave at 10:30am but reviewed the draft JWS after conferencing).
3. Steve Mutch (ChanceryGreen) acted as independent facilitator.
4. Caitlin Todd (ChanceryGreen) assisted the experts to draft the Joint Witness Statement (“JWS”).

CODE OF CONDUCT

5. The experts confirm that they have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023 and agree to comply with it. The experts confirm that the issues addressed in this JWS are within their area of expertise, unless stated otherwise.

SCOPE OF JWS

6. The scope of this JWS is limited to responding to the questions posed by the Panel in Attachment 1 of Minute 19.
7. Attachment 1 of Minute 19 formed the basis of an agenda for conferencing.
8. In this JWS, we report the outcome of our discussions in relation to each item (below), including by reference to points of agreement, disagreement, and unresolved matters or uncertainties. Where we are not agreed in relation to any issue, we have set out the nature and basis of that disagreement.

QUESTIONS FROM THE PANEL

Basin A

1. **What is the appropriate method for prediction of ground water levels to be used for mounding assessment for the 10 year and 100 year ARI event (allowing for climate change) including an appropriate factor of safety?**
9. DM and WM refer to the WGA memo (dated 3 March 2026) and attached as **Appendix 1**. The mounding assessment was undertaken to have a conservative approach on the stormwater disposal in Basin A. The mounding assessment demonstrated that under worst-case scenarios, it still maintained a soakage/recharge rate of 3390m³ per day which is adequate to discharge less than 100yr storm events with climate change RCP8.5 (2848m³ per day – see Maven memo responding to Minute 16 dated 27 February 2026) (see WGA memo 3 March 2026 and attached as **Appendix 1**). The relevant standards are the RITs and Waikato Regional Council requirements and MPDC soakage guidelines as outlined in Maven memo responding to Minute 16 (dated 27 February 2026). The requirements that govern this design are a 1m clearance to initial groundwater level and drainage of the 100yr event within 72hrs.
10. CH states that under the monitored groundwater conditions under the top of Basin A have reached 5.3m below ground level (mBGL). The modelled level of 3.6mBGL is 0.3m above any groundwater levels that have been observed in the last 30 years based on the synthetic hydrograph. JW would expect that, in a 100yr record, this would be similar to the highest recorded level.
11. CH and JW agree that the 3.6mBGL used as an initial groundwater level is appropriate for the mounding assessment for 10yr and 100yrs ARI event.

12. DM and WM consider that, with measured groundwater peaking at 5.3mBGL and the average soakage across the test bores at an average of 261.5mm/hr and a FOS of 0.5 (130.75mm/hr) the basin complies with the relevant standards. To achieve the 72hr drain down a rate of only 36.03mm/hr is required giving an effective FOS of 0.13 or over 7 times.
13. DM and WM note that, while confirming compliance with the relevant standards, they appreciate sensitivity testing is important to confirm redundancy exists. The mounding assessment has been provided for consideration of groundwater level rise not infiltration rates for the stormwater design.
14. Ultimately, however, in terms of Stormwater Basin A, DM and WM state that this has been designed with conservative redundancy when it comes to soakage, as outlined in the Maven Memo in response to Minute 16 (dated 27 February 2026). Basin A overflows to an existing overland flow path to the north. In a zero-soakage scenario (not a scenario required to be assessed by the standards) the basin is of sufficient size to reduce this overflow to less than the pre-development flows for the 100yr event, thereby demonstrating that there is no downstream effect on overland flow.
15. Overall, DM, WM and CH consider that the design in Basin A has been tested under a number of scenarios, including:
 - (a) normal conditions (as per RITs standards and MPDC and WRC guidelines) in which it is able to soak away and store the 10yr and 100yr;
 - (b) no soakage (relies fully on storage and releases peak flow at less than pre-development for the 100yr event via the spillway); and
 - (c) peak mounding (fully saturated with initial groundwater level conditions at 3.5m below top of basin).
16. DM, WM, CH, BR and MW consider the design (described above) has been adequately tested to ensure that adaptive management of stormwater can be applied through the design process. JW agrees, noting that he has not reviewed the stormwater component and has focused on the groundwater aspect.
17. MW requested that DM and WM provide a cross section through Basin A showing the results of the groundwater assessment, rather than the current RL62m which is simply the basin invert minus 1m. DM and WM confirmed they will provide this as part of the Stormwater Management Plan. CH indicated that the maximum

modelled initial groundwater level is RL63.0m, the maximum level within the synthetic hydrograph over 30-yr period is RL62.7m, and the maximum observed groundwater level is RL61.3m. The invert of the Basin A soakage device is RL63.0m.

2. What is the basis of runoff volume for input to mounding assessment for the 10 year and 100 year ARI (CC) event, including description and quantification of the contributing area including area outside proposed residential area and summary calculations for assessing runoff volume to Basin A or 10 year and 100 year ARI (CC) event? Does this include an allowance for disposal of up to the 10 year ARI event by way of proposed soakage to be provided within the lots and roads in Catchment A?

18. DM and WM refer to Maven memo responding to Minute 16 (dated 27 February 2026). The disposal is not necessary within the lots and roads in Catchment A due to the redundancy within Basin A. Catchments are shown on Maven plan C420 revision D (attached as **Appendix 2**). See also answer to Question 1 above.

19. DM and WM state that Basin A has been designed with redundancy well beyond the standards such that even when accounting for no soakage this catchment discharges less than predevelopment.

20. DM and WM note that, given this redundancy, in the 10yr event soakage on lots and in roads (with overflows to Basin A) are not critical to stormwater disposal and can be removed and replaced with a pipe network if required. However, if soakage can be provided, it will be, as per standard practice for stormwater management.

3. If disposal of up to the 10-year ARI event is proposed by way of proposed soakage to be provided within the lots and roads in Catchment A, are subsoil drains proposed/ required within Catchment A to prevent groundwater levels rising to an extent that would compromise soakage disposal?

21. DM and WM refer to answer to Question 2 at paragraph 18.

22. DM and WM state that subsoil drains are not required within Catchment A to prevent groundwater levels rising to an extent that would compromise soakage

disposal. These subsoil drains proposed as part of the road help to prevent saturation of subgrade and are standard practice in road design.

23. DM and WM note that if using soakage trenches for the primary stormwater system, no under kerb subsoil drains would be installed; however, if there were no soakage trenches then subsoil drains would be installed.

24. BR, DM and WM qualify that the stormwater management in Catchment A either uses soakage disposal or piped network.

4. Can a revised mounding exercise based on items 1 and 2 above be completed with methods and assumptions agreed to as part of this conferencing by COB 26 February?

25. Refer to Question 1 above.

26. CH and JW agree that the modelling for the mounding assessment has been carried out with appropriate initial groundwater level conditions for the 10 year and 100 year ARI event (allowing for climate change) including an appropriate factor of safety. CH and JW agree that there is sufficient soakage even under high initial groundwater conditions and 100yr storm events.

5. If Item 4 is achievable, please develop consent conditions appropriate to ensure stormwater management from Catchment A for up to a 100 year ARI (CC) event can be achieved in the long term. If these include by way of requirements in a management plan, please list the matters which need to be addressed in a management plan.

27. DM and WM state that the draft conditions as previously agreed between the experts (not originally provided to JW) already align with the above and the prior agreements as part of the Joint Witness Statements dated 11 December 2025.

28. DM, WM, CH, and JW agree that modelling has been completed to a sufficient level, and no additional draft conditions are needed so long as the draft conditions as previously agreed between the experts during the previous Joint Witness Statements dated 11 December 2025 are included.

29. JW agrees that the synthetic hydrograph has been completed and no longer needs to be included in the draft conditions.

- 6. If Item 4 is not achievable can consent conditions be crafted which provide a pathway that disposal of stormwater from Catchment A for up to a 100 year ARI (CC) event can be achieved in the long term. If these include by way of requirements in a management plan please list the matters which need to be addressed in a management plan.**
30. DM and WM note this is not applicable. Refer to Question 1 which provides that disposal and storage of stormwater is achievable, coupled with provision for overflow.

Subsoil drains

- 7. Are subsoil drains required within parts of the proposed residential development and retirement village to prevent groundwater levels rising to an extent that would compromise the proposed road foundations or otherwise result in unacceptable effect e.g. risk of liquefaction.**
31. BM states that, from a geotechnical perspective, subsoil drains are not required.
32. BM states that the current assessment of geo-hazards presented in the CMW Geotechnical Investigation Report (GIR, ref. HAM2023-0124AI Rev 3, dated 18 November 2025) (“CMW GIR”) presents assessments for the following geo-hazards: seismicity, fault rupture, liquefaction, lateral spread, slope stability and static settlement.
33. BM states that the current geo-hazard assessments use the pre-development winter groundwater surface presented in the WGA Hydrogeological Effects Report (ref. WGA241087-RP-HG-0002-C, Figure 4, pdf page 13). The modelled surface is based on monitoring data and expected changes to the groundwater regime due to design climate change conditions.
34. BM states the geo-hazard assessments presented in the CMW GIR conservatively do not consider groundwater management devices (subsoils) to be active during design conditions, nor groundwater levels to lower to an equilibrium once management devices such as the greenway are introduced. Therefore, the findings of the analyses stand if no subsoil drains are installed. If subsoil drains are installed and the groundwater is lowered as a result, this is expected to lower the severity of the geo-hazards risk for the proposed development.

35. BM states that geo-hazards are being mitigated via alternative methods as defined in the CMW GIR. Therefore, subsoil drains are not necessary as a mitigation measure to manage geo-hazards.
36. WM and DM state that subsoil drains are only proposed:
- (a) Where no soakage trenches are installed or no soakage is available.
 - (b) In the form of under kerb drainage.
37. TC notes he has not yet been able to correlate the drain levels with the design groundwater levels, the missing link appearing to be a groundwater contour plan generated from the groundwater modelling and used in the civil design but not yet included in the documentation. TC notes that this uncertainty is covered by the recommendations in the Joint Witness Statement dated 11 December 2025 by CH, JW and TC, with the adaptive management approach providing the contingency approach.
38. WM and DM state that the groundwater levels will not affect the design of the stormwater network or the roading design. DM states that soakage trenches would be used where minimum clearance between groundwater levels is achieved. Where minimum clearance isn't achieved, a piped reticulation system will be adopted.

8. If Item 1 is affirmed, please provide a plan showing the extent of such subsoil drains.

39. DM and WM note that as per Question 7, subsoil drains are not required. Stormwater management is adaptive and can be either soakage trenches or piped. Drawings C401 revision B will be updated to reflect this and will be provided as part of the updated Stormwater Management Plan. This will inform if subsoil drains will be used.

9. Are subsoil drains required within parts of the proposed residential development to prevent groundwater levels rising to an extent that would compromise the disposal of up to the 10 year ARI event by way of proposed soakage to be provided within the lots and roads.

40. DM and WM state that as per Question 7, subsoil drains are not required. Stormwater management is adaptive and can be either soakage trenches or piped.

10. If Item 3 is affirmed, please provide a plan showing the extent of such subsoil drains, and noting drain invert level at key junctures, and outlets of such drains.

41. DM and WM note that as per Question 7, subsoil drains are not required. Stormwater management is adaptive and can be either soakage trenches or piped. This will inform if subsoil drains will be used.

11. If subsoil drains are required at any locations to limit the extent of groundwater level raising, please develop conditions for the installation monitoring and maintenance of these including provision for dealing with biofouling. If these include by way of requirements in a management plan please list the matters which need to be addressed in a management plan.

42. DM and WM state that as per Question 7, subsoil drains are not required.

43. To clarify, stormwater management is adaptive and can be either soakage trenches or piped.

SIGNATURES OF EXPERTS



Dean Morris



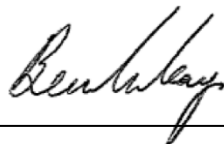
Will Moore



Clare Houlbrooke



Fraser McNutt



Ben McKay



Kori Lentfer



Dave Sullivan



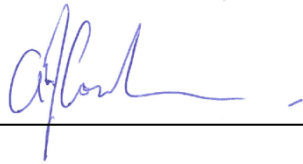
Megan Wood



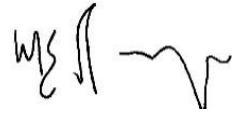
Sheryl Roa



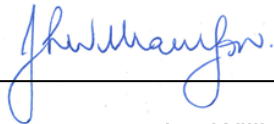
Bronwyn Rhynd



Tony Cowbourne



Marius Rademeyer



Jon Williamson



Mitchell Smith

Appendix 1

ATTENTION	Expert Consenting Panel - Ashbourne
SUBJECT	Response to Minute 19
AUTHOR	Clare Houlbrooke

This memorandum provides a response to Minute 19, the Ashbourne Development.

The panel have requested a response to concerns on the mounding assessment for proposed Stormwater Basin A raised by Mr Williamson.

1. INITIAL GROUNDWATER LEVELS FOR MOUNDING MODELLING

What is appropriate method for prediction of ground water levels to be used for mounding assessment for the 10 year and 100 year ARI event (allowing for climate change) including an appropriate factor of safety?

WGA have focussed the mounding assessment on Basin A as WGA understands that the other stormwater devices are now stormwater wetlands without any soakage requirements.

To provide guidance on long-term groundwater level trends at Basin A site, WGA downloaded the groundwater level record from a nearby WRC monitoring bore at Matamata Aerodrome (64_831; Figure 1). This bore (9 m deep; Figure 2) is a similar depth to 25-P3 (screened at a depth of 6.7 to 8.2 mbgl) and in similar pumice sand aquifer.

The groundwater levels provided by WRC for Bore 64_831 were corrected to meters below ground level, based on the recorded ground elevation in the WRC bore database. The levels were then compared to the available record for 25-P3. Automated levels for Bore 64_831 are available up to 19 February 2024 and manual values are available from this time until February 2025. Manual monitored levels during the last 12 months are similar to those recorded in 25-P3. Given the close match between groundwater levels in both bores for the monitored period in 25-P3 no further corrections were made to the data (Figure 1). The adjusted record from Bore 64_831 is considered to represent a long-term synthetic hydrograph for 25-P3.

Based on this synthetic hydrograph (Figure 1), WGA concludes that groundwater levels at 25-P3 seldom rise above 4.5 m bgl. The synthetic record indicates groundwater only rose above 4.5 m bgl, during one extended period over 30-year record, occurring in 2017. During this period groundwater levels rose to a maximum level of 3.9 m bgl. No other individual storm events or seasonal combination of rainfall events resulted in a level of 4.5 m bgl being exceeded. Therefore, the most conservative groundwater level used in the groundwater mounding assessment (3.6 m bgl) is 0.3 m above the highest groundwater level derived from the synthetic record over a 30-year period.

WGA notes that the top of basin level used in the mounding assessment is higher (more conservative) than the pond water levels that would occur during both the 10 year and 100-year ARI events, as determined by Maven in their stormwater design.

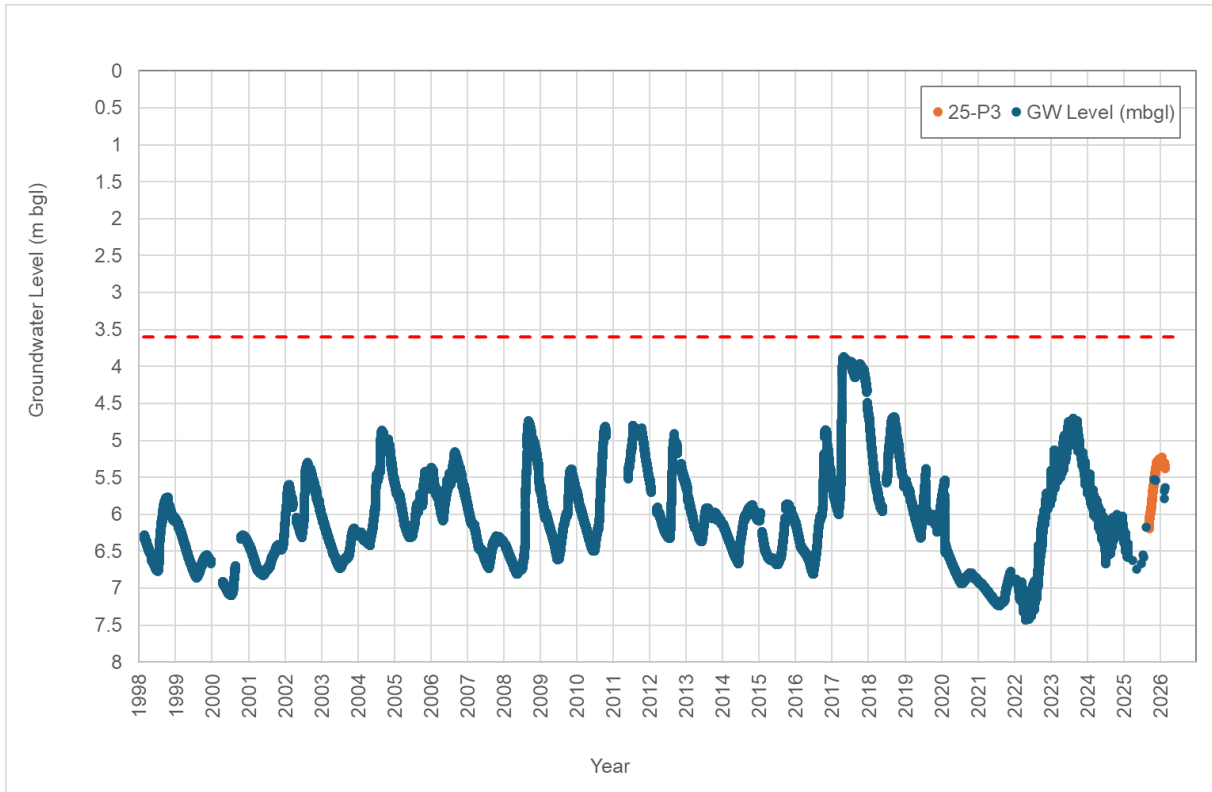


Figure 1: Groundwater Level Synthetic Hydrograph Using WRC Bore 64_831 for Site 25-P3

Council well number : 64_831
Well name : Bore 64 - Station 831
Drilling company : Waikato Regional Council
Drilling date : 27/02/1992
Drilling method :
Locality :
Total depth drilled : 9m
NZTM : 1841441 : 5820147

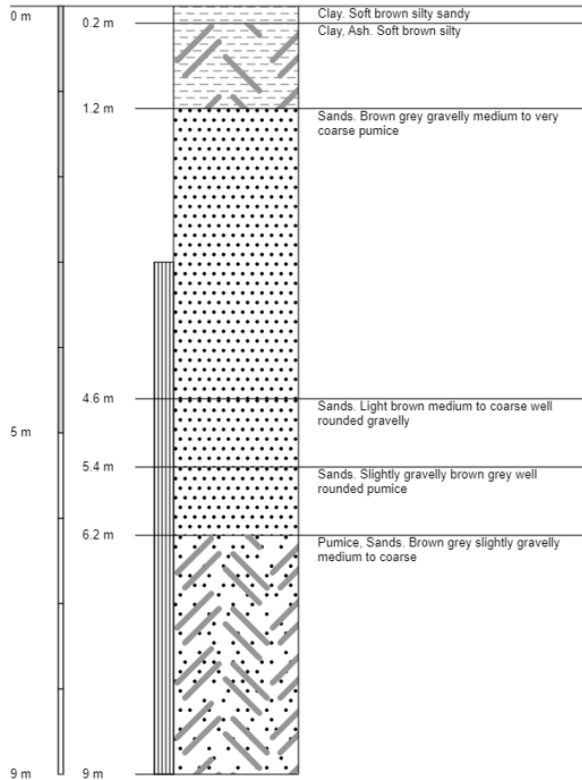


Figure 2: Bore Log for WRC Monitoring Bore 64_831

2. MODELLED RECHARGE RATES IN MOUNDING ASSESSMENT

The recharge rates that are derived from the mounding assessment are determined by designating a maximum allowable water-table rise. The recharge rate is then adjusted until the consequent mounding reaches the designated maximum level. It is important to note that the recharge rates for a defined maximum mounding level are greater for storms of shorter duration than for longer storms.

The mounding modelling documented by WGA was carried out to determine changes in groundwater levels that could have an effect at nearby properties. On that basis, longer duration storm events and recharge periods provide a more conservative mounding outcome, in terms of greater groundwater level rise at nearby structures. Therefore, recharge periods of 3-days and 36-days were used in the WGA mounding assessment.

In addition to the modelling described above, shorter duration modelling was carried out covering a recharge period of 1-day. None of the original aquifer parameters and layout settings were changed for this additional modelling. The resulting recharge arising from a 1-day duration storm event, together with all of the input parameters, is presented in Figure 3. This mounding analysis corresponds with basin simulations for 24 hour storm events that Maven have undertaken.

The calculated recharge rate for Basin A during a 24 hour storm event that leads to a maximum groundwater mounding of 3.5 m below the basin equates to a soakage rate of is 3,390 m³/day. WGA understands that the recharge rate in this conservative scenario exceeds the Maven infiltration rates required as a minimum for management of the 10 year and 100-year ARI events (allowing for climate change). If the starting groundwater levels were deeper than provided for under this simulation, then the potential groundwater recharge rate could be greater. We also note that the recharge rate of 0.78 m/day is less than the potential soakage rates identified by Maven for the floor of Basin A.

MOUNDSOLV	
GROUNDWATER MOUNDING ANALYSIS	
FOR A SLOPING WATER-TABLE AQUIFER	
ZLOTNIK ET AL. (2017) SOLUTION	
Site Description	
Aquifer Data	
Horizontal hydraulic conductivity, K	1.53 m/d
Specific yield, S_y	0.22
Initial saturated thickness, h_0	8.3 m
Maximum allowable water-table rise, σ	3.5 m
Dip, i	-0.002 m/m
Slope rotation from x axis, γ	30°
Recharge Data	
X coordinate at center, X	487891 m
Y coordinate at center, Y	694572 m
Dimension along x* axis, L	100 m
Dimension along y* axis, W	43.5 m
Rotation from slope direction, ϕ	36.3°
Recharge rate, Q	3390 m ³ /d
Infiltration rate, q	0.7793 m/d

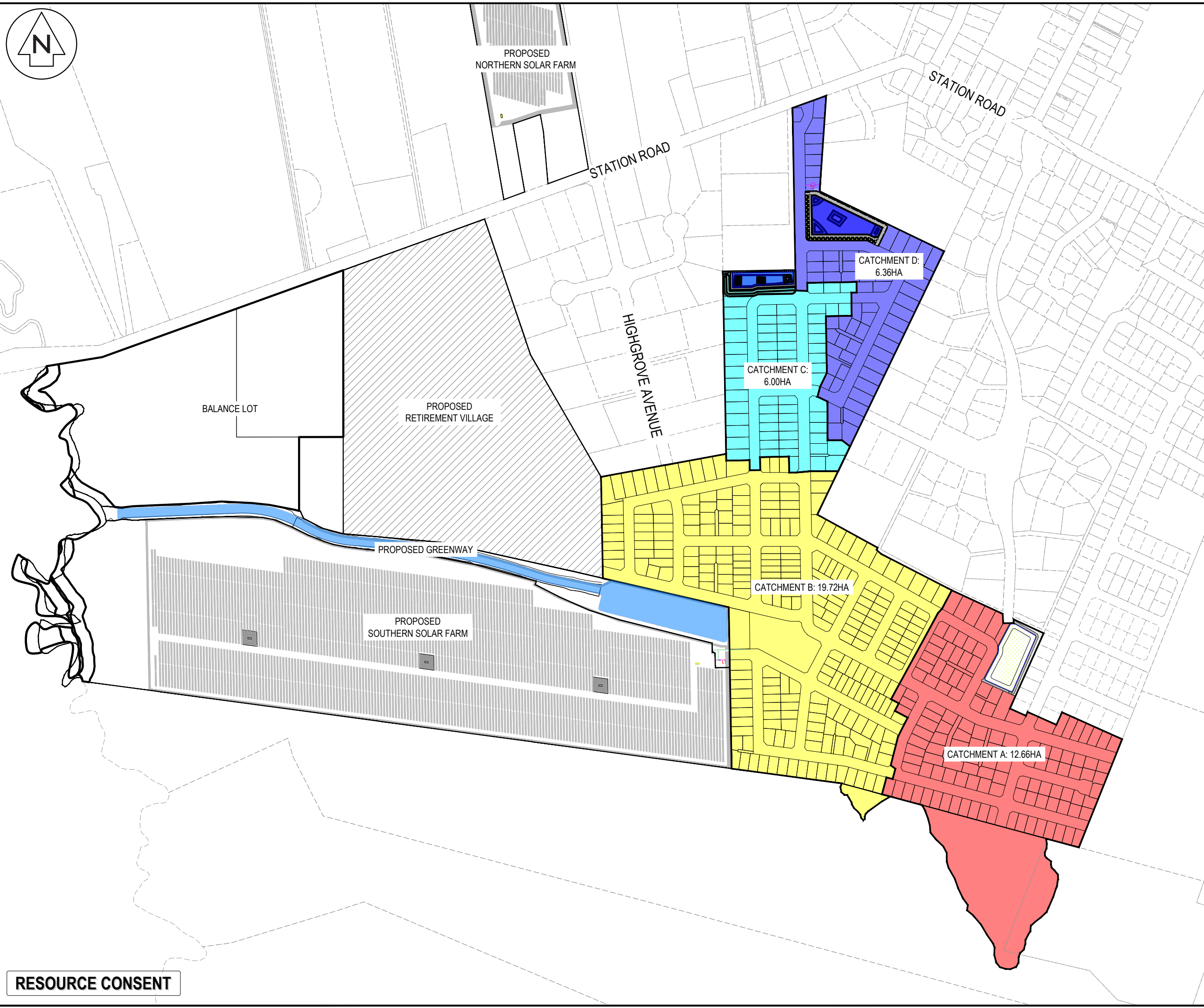
Figure 3: Results from Groundwater Mounding for a 24-hour Period and 3.5 m Water Level Rise.

Yours sincerely,



Clare Houlbrooke
Principal Hydrogeologist
WALLBRIDGE GILBERT AZTEC

Appendix 2



- Notes
1. All works to be in accordance with Waikato Regional Infrastructure Technical Specifications.
 2. Co-ordinates in terms of NZ Geodetic Datum Mount Eden 2000.
 3. Levels in terms of the New Zealand Vertical Datum 2016.
 4. It is the contractors responsibility to locate all services that may be affected by his operations.
 5. Approved hardfill is to be used in backfilling of all stormwater lines within the road reserve.
 6. All catchpit leads shall be laid at 1% unless otherwise specified.
 7. All lines to be abandoned shall be sealed at each end. Timing of all sealing to be coordinated with council staff.

Legend

	EX BOUNDARY
	CATCHMENT BDY
	PROP LOT BOUNDARY
	CATCHMENT A
	CATCHMENT B
	CATCHMENT C
	CATCHMENT D

D	FAST TRACK APP	MKS	11/2025
C	FAST TRACK APP	MKS	05/2025
B	FAST TRACK APP	MKS	04/2025
A	FAST TRACK APP	MKS	04/2025
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	MKS		02/2025
Drawn	MKS		02/2025
Checked	DJM		05/2025



Project
**ASHBOURNE
 RESIDENTIAL
 FOR
 MARAMARA
 DEVELOPMENTS LTD**

Title
**PROPOSED STORMWATER
 BASIN CATCHMENT
 OVERVIEW PLAN**

Project no.	289001		
Scale	1:6000 @ A3		
Cad file	C420-SW BASIN CATCHMENTS.DWG		
Drawing no.	C420	Rev	D

RESOURCE CONSENT

DATE: 11/19/25 FILEPATH: F:\MVEN\HAMITON6 PROJECTS\289001 - STATION ROAD\ DRAWING\1 - ASHBORNE RESIDENTIAL\C420-SW BASIN CATCHMENTS.DWG



PROPOSED STORMWATER BASIN A
REFER TO DETAIL C440-1

PEAKEDALE DRIVE

CATCHMENT A: 12.66HA

LOT 3 DP 463448
72A HINUERA ROAD

LOT 76 DP 597679

LOT 1 DP 463448
72B HINUERA ROAD

- Notes
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	PROP LOT BOUNDARY
	CATCHMENT A
	CATCHMENT B
	CATCHMENT C
	CATCHMENT D

C	FAST TRACK APP	MKS	05/2025
B	FAST TRACK APP	MKS	04/2025
A	FAST TRACK APP	MKS	04/2025
Rev	Description	By	Date
		By	Date
Survey	MAVEN		05/2024
Design	MKS		02/2025
Drawn	MKS		02/2025
Checked	DJM		04/2025

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5 Owens Road, Epsom
Auckland 1023

Project
**ASHBOURNE
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FOR
MARAMARA
DEVELOPMENTS LTD**

Title
**PROPOSED STORMWATER
BASIN CATCHMENT
PLAN A**

Project no.	289001
Scale	1:2000 @ A3
Cad file	C420-SW BASIN CATCHMENTS.DWG
Drawing no.	C420-1
Rev	C

RESOURCE CONSENT

DATE: 11/19/25 FILEPATH: F:\MVEN\HAMITON6 PROJECTS\289001 - STATION ROAD\DRAWING\1 - ASHBOURNE RESIDENTIAL\LOGO\SW BASIN CATCHMENTS.DWG



PROPOSED RETIREMENT VILLAGE

PROPOSED GREENWAY

PROPOSED STORMWATER BASIN B & GREENWAY REFER TO C490 DRAWING

PROPOSED SOUTHERN SOLAR FARM

CATCHMENT B: 19.72HA

LOT 3 DP 463448
72A HINUERA ROAD

ELDONWOOD DRIVE

- Notes
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	CATCHMENT B
	CATCHMENT C
	CATCHMENT D

C	FAST TRACK APP	MKS	05/2025
B	FAST TRACK APP	MKS	04/2025
A	FAST TRACK APP	MKS	04/2025
Rev	Description	By	Date
Survey	MAVEN		05/2024
Design	MKS		02/2025
Drawn	MKS		02/2025
Checked	DJM		04/2025

Project
**ASHBOURNE
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Title
**PROPOSED STORMWATER
 BASIN CATCHMENT
 PLAN B**

Project no.	289001
Scale	1:2500 @ A3
Cad file	C420-SW BASIN CATCHMENTS.DWG
Drawing no.	C420-2
Rev	C

RESOURCE CONSENT

DATE: 11/19/25 FILEPATH: F:\MVEN\HAMITON6 PROJECTS\88901 - STATION ROAD\ DRAWING\1 - ASHBOURNE RESIDENTIAL\C420-SW BASIN CATCHMENTS.DWG



LOT 5 DP 365568

PROPOSED STORMWATER BASIN C
REFER TO DETAIL C440-3

CATCHMENT C: 6.00HA

HIGHGROVE AVENUE

Notes

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Legend

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- PROP LOT BOUNDARY
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- CATCHMENT C
- CATCHMENT D

D	FAST TRACK APP	MKS	11/2025
C	FAST TRACK APP	MKS	05/2025
B	FAST TRACK APP	MKS	04/2025
A	FAST TRACK APP	MKS	04/2025
Rev	Description	By	Date
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Survey	MAVEN		05/2024
Design	MKS		02/2025
Drawn	MKS		02/2025
Checked	DJM		04/2025

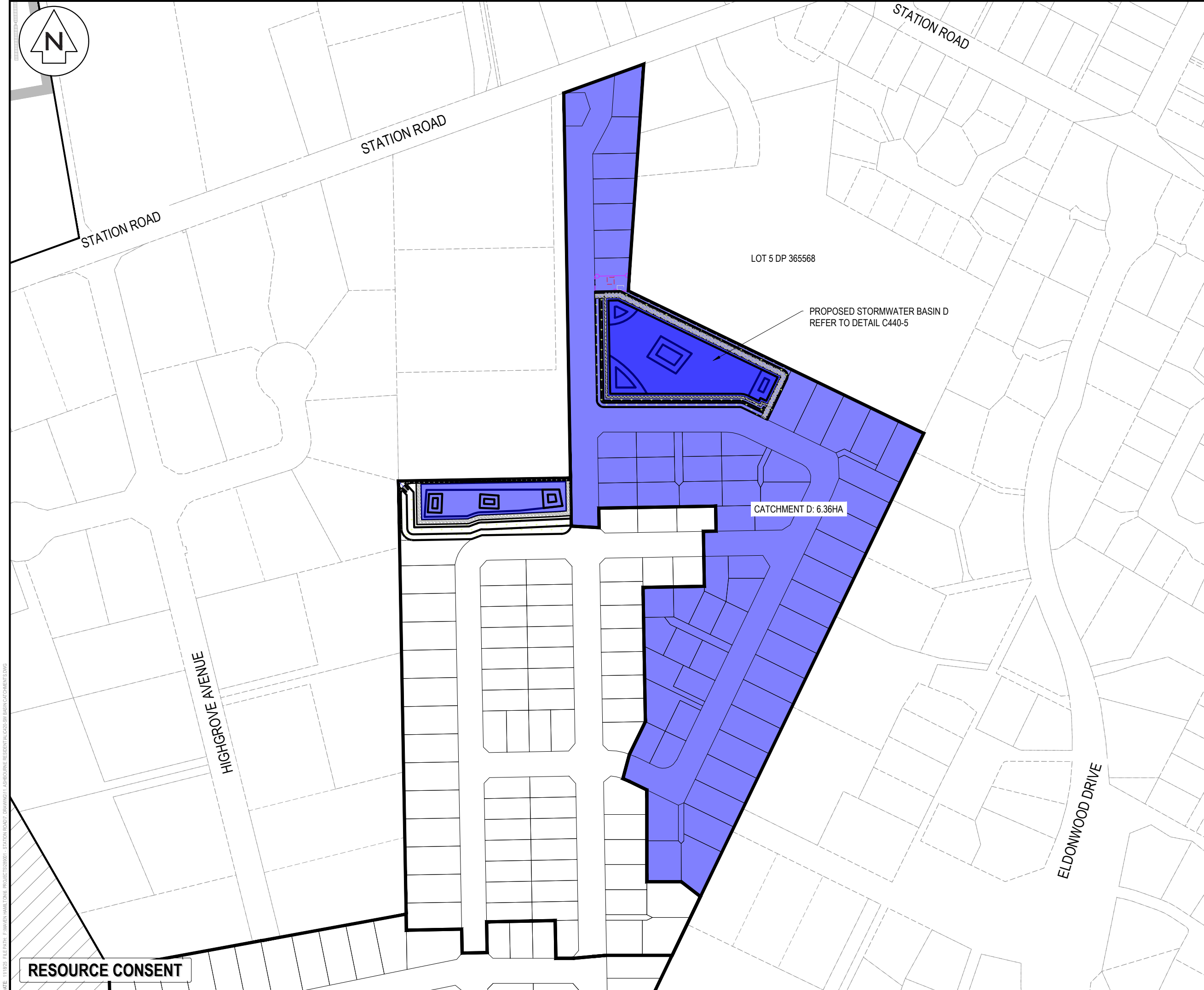
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 Auckland 1023

Project
**ASHBOURNE
 RESIDENTIAL
 FOR
 MARAMARA
 DEVELOPMENTS LTD**

Title
**PROPOSED STORMWATER
 BASIN CATCHMENT
 PLAN C**

Project no.	289001
Scale	1:2000 @ A3
Cad file	C420-SW BASIN CATCHMENTS.DWG
Drawing no.	C420-3
Rev	D

RESOURCE CONSENT



- Notes
1. All works to be in accordance with Waikato Regional Infrastructure Technical Specifications.
 2. Co-ordinates in terms of NZ Geodetic Datum Mount Eden 2000.
 3. Levels in terms of the New Zealand Vertical Datum 2016.
 4. It is the contractors responsibility to locate all services that may be affected by his operations.
 5. Approved hardfill is to be used in backfilling of all stormwater lines within the road reserve.
 6. All catchpit leads shall be laid at 1% unless otherwise specified.
 7. All lines to be abandoned shall be sealed at each end. Timing of all sealing to be coordinated with council staff.

Legend

	EX BOUNDARY
	CATCHMENT BDY
	PROP LOT BOUNDARY
	CATCHMENT A
	CATCHMENT B
	CATCHMENT C
	CATCHMENT D

D	FAST TRACK APP	MKS	11/2025
C	FAST TRACK APP	MKS	05/2025
B	FAST TRACK APP	MKS	04/2025
A	FAST TRACK APP	MKS	04/2025
Rev	Description	By	Date
	Survey	MAVEN	05/2024
	Design	MKS	02/2025
	Drawn	MKS	02/2025
	Checked	DJM	04/2025



Project
**ASHBOURNE
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 DEVELOPMENTS LTD**

Title
**PROPOSED STORMWATER
 BASIN CATCHMENT
 PLAND D**

Project no.	289001
Scale	1:2500 @ A3
Cad file	C420-SW BASIN CATCHMENTS.DWG
Drawing no.	C420-4
Rev	D

DATE: 11/19/25 FILEPATH: F:\MVEN\HAMTON6 PROJECTS\289001 - STATION ROAD\DRAWING\1 - ASHBOURNE RESIDENTIAL\0420-SW BASIN CATCHMENTS.DWG

RESOURCE CONSENT