BEFORE AN EXPERT CONSENTING PANEL

IN THE MATTER	of the Fast-track Approvals Act 2024 (**FTAA**)
AND	
IN THE MATTER	of an application by Winton Land Limited under section 42 seeking approval for the Sunfield project (FTAA-2503-1039)

JOINT STATEMENT OF EVIDENCE BY ANDREW CHIN, DR ROJA TAFAROJI, AND J GRANT MURRAY (AUCKLAND COUNCIL) AND BY GRIFFIN BENTON-LYNNE (AUCKLAND TRANSPORT)

(a) Stormwater / Flooding

(b) Groundwater / Geotechnical

Dated: 9 December 2025

INTRODUCTION

1. This statement is provided by Andrew Chin, J Grant Murray, and Dr Roja Tafaroji on behalf of Auckland Council, and by Griffin Benton-Lynne on behalf of Auckland Transport.

2. Our qualifications and experience are set out in our previous statements to the Panel and are not repeated. We confirm compliance with the Environment Court Practice Note 2023 Code of Conduct for Expert Witnesses.

3. We each confirm that we stand by the analysis, conclusions and recommendations in our earlier reports and/or our Joint 'Will Say' Statement dated 7 November 2025 (**Will Say**), and the Joint Witness Statement on Stormwater / Flooding and Groundwater / Geotechnical dated 21 November 2025 (**JWS**), subject to any updates or clarifications in this statement.

4. This statement addresses the topics identified by the Panel at paragraphs 13-14 of Minute 19 dated 5 December 2025. Where our views remain as previously stated, we cross-reference to the relevant earlier material rather than repeating it.

5. This joint statement focuses on what we consider the most substantive issues for the Panel's determination. Other matters raised in earlier reviews have not been exhaustively revisited here, and we note that detailed comments on draft conditions have been provided previously (for example, the Healthy Waters and Flood Resilience Memo dated 4 August 2025 provided detailed comments on conditions[1]). Should the Panel be minded to grant the application, we anticipate the opportunity to provide further comment on conditions under section 70 of the FTAA, including on conditions not canvassed in this statement.

APPROPRIATENESS OF DUAL USE OF POND AREAS FOR STORMWATER ATTENUATION AND RECREATION

6. This issue is addressed at paragraphs 5.20-5.23 of the Will Say and at Section C(a)(ii) of the JWS.

7. The applicant's memo, prepared by Studio Pacific Architecture, dated 20 November 2025, submitted on 21 November in support of the proposed dual

[1] Healthy Waters and Flood Resilience Memo dated 4 August 2025, Annexure 3 to Council planning memo. Refer to the conditions registers at Appendices A and B.

use of stormwater reserves for recreational purposes, has been reviewed. The brief comments below are based on the information provided within that memo, the broader application material, and the technical stormwater assessment undertaken by Healthy Waters. The comments are limited to the recreational functionality, safety, and long-term usability of land to be vested in Council.

8. The applicant's memo places significant weight on the assumption that the stormwater reserves will achieve acceptable ground conditions suitable for year-round recreational use. However, the current stormwater design and modelling do not provide sufficient certainty regarding:

   (a) surface water inundation frequency,

   (b) groundwater levels and soil saturation, and

   (c) the functional performance of the reserves following rainfall events.

9. Without a stormwater design that has been verified as workable, there is a concern about relying on the applicant's assumptions regarding ground conditions. The recreational outcomes described in the memo are therefore speculative and cannot be assured.

10. The applicant's memo outlines potential recreational opportunities within the stormwater reserves, but it does not demonstrate that the land will meet the minimum standards for usable open space, including:

    (a) year-round accessibility,

    (b) safe and firm ground conditions,

    (c) compliance with gradients and maintenance requirements, and

    (d) provision of open space capable of supporting formal and informal recreation.

11. If the reserves experience extended wetness, frequent ponding, or soft ground, they will be unable to support the activities described. "Theoretical" recreation cannot substitute for actual functional usability.

12. Dual use of stormwater assets is not opposed in principle. Dual use can be successful when:

    (a) Stormwater performance is robust,

(b) Inundation is infrequent and short-duration,

(c) Surface conditions remain usable for safe and durable implementation of soft/hard assets (including buildings providing for formal recreational functions such as libraries and clubrooms), and

(d) The open space design clearly meets Council's Parks standards.

13. In this case, dual use is not supported because the prerequisite certainty around stormwater performance has not been established. Without that assurance, vesting these areas as functional open space would present an unacceptable long-term risk to Council and future residents.

14. The proposed stormwater management reserves and dual-use reserves within the Sunfield development are extensive, and their long-term affordable maintenance depends on suitable design for machine access and loading. Elements such as safety benches on the sloping sides of proposed swales are essential to enable weed and litter removal by machines, which is critical for maintaining amenity and recreational values as well as preserving conveyance and stormwater attenuation functions. A pre-commencement condition is therefore recommended, should consent be granted, requiring these considerations to be incorporated into the landscape design. This is outlined under the 'Other Comments on Draft Conditions' section below.

15. The dual-use issue raises broader concerns about the adequacy of the overall open space network. The proposed network includes three neighbourhood parks of approximately 1 hectare each, to remain privately owned, but publicly accessible. Council's Open Space Provision Guidelines recommend neighbourhood parks of 3-5 hectares to accommodate multiple recreational functions. Parks of 1 hectare cannot provide the range of activities expected at neighbourhood level (informal sports, play spaces with amenities, simultaneous uses, community gathering space). Private ownership also creates uncertainty around long-term public access, maintenance standards, and protection of recreational values.

16. If the stormwater reserves cannot reliably function as recreational space (due to the performance issues identified above), and the neighbourhood parks are undersized and privately owned, the open space network will not adequately serve the future Sunfield population. This creates a risk that Council will inherit reserves that are frequently unusable, with elevated

maintenance costs and reduced recreational outcomes, while formal recreational opportunities remain insufficient.

17. In the applicant's latest memo from Studio Pacific Architecture, the most recent Open Space Distribution Plan shows reliance on proposed stormwater reserves as well as the school ground, with the legend noting in relation to these areas: *"Open Spaces forming Neighbourhood Park function"*. This is not supported given the risks with the proposed design of the reserves and due to the current gaps in the network.

18. It is recommended that stormwater reserves should not be relied upon for recreational open space unless and until their year-round usability can be confirmed. It is further recommended that neighbourhood parks of adequate size (consistent with Council's guidelines of 3-5 hectares) be provided and vested in Council to ensure provision of formal and informal recreation opportunities, long-term public access and appropriate maintenance standards.

CONVEYANCE OF STORMWATER FLOWS TO PAPAKURA STREAM

19. Downstream conveyance capacity and the adequacy of informal farm drains are addressed at paragraphs 5.24-5.32 of the Will Say and at Sections C(a)(i) and D of the JWS.

20. Following expert conferencing, a site visit was conducted on 4 December 2025 to assess the current operational condition of existing drains in the area, including the public Mill Road table drain and drains serving the Sapwood Crescent area. This was undertaken to provide the Panel with concrete evidence of the maintenance challenges and performance issues that affect open drain systems in this locality, which are directly relevant to assessing the viability of the applicant's proposed reliance on private farm drains.

21. Further detail on the risks associated with reliance on private farm drains, including operational evidence from the site inspection, is provided in **Annexure 1**. This annexure demonstrates that the proposed approach would increase maintenance challenges and long-term flooding and odour issues for residents, unless robust mitigation measures or a publicly owned high-capacity channel solution is adopted.

22. We consider that the proposed scope of the Stormwater Management Plan in the draft conditions should be expanded to include specific requirements

relating to the farm drains. These conditions are relevant only if the application were to be granted despite the downstream capacity and maintenance issues identified. The detailed requirements are listed in the 'Other Comments on Draft Conditions' section of this evidence.

THE DESIGN OF POND 1

23. Concerns regarding the design of Pond 1, including the bilateral weir system and attenuation strategy, are addressed at paragraphs 5.13-5.14 of the Will Say and at Section C(a)(i) of the JWS.

24. Pond 1 remains a critical element of the applicant's design, intended to manage flow regimes back to pre-development levels and avoid adverse impacts on downstream landowners. However, the pond has a complex design that is highly sensitive to small variations in operation and maintenance. The lack of capacity in the downstream private farm drains, combined with the risk of blockages in those drains as highlighted in the operational evidence provided in **Annexure 1**, further underscores that this asset will be a point of vulnerability within the overall stormwater system.

INTEGRATION OF SUNFIELD AND MILL ROAD STAGE 2 STORMWATER SYSTEMS

25. Integration with Mill Road Stage 2 is addressed at paragraphs 5.37-5.40 of the Will Say and at Section G of JWS.

VESTING OF STORMWATER ASSETS

26. Vesting is addressed at paragraphs 5.47-5.48 of the Will Say and at Section H of the JWS.

27. As discussed at expert conferencing, vesting of stormwater assets can be addressed through conditions covering land extents, maintenance periods, and asset standards. The specifics of what will be accepted for vesting require further negotiation between the applicant and Council.

28. We recommend a condition requiring that, prior to Engineering Plan Approval and prior to any s223 approval, the consent holder must obtain written confirmation from Auckland Council Healthy Waters regarding acceptance of stormwater devices proposed for vesting. Where assets or associated land are not accepted, the relevant plan must be updated to show such assets/land as separate allotments owned by a common entity. This provides

a clear mechanism for working through vesting arrangements as the design is finalised.

29. We recommend a similar condition as above requiring the consent holder to obtain written confirmation from Auckland Council Parks Planning team regarding acceptance of any parks/recreational assets on the lands proposed for vesting prior to any s223 approval / Engineering Plan Approval stage.

TIMING FOR MODELLING OF OVERLAND FLOW PATHS

30. Concerns regarding the timing for modelling of overland flow paths are addressed at paragraphs 5.42-5.44 of the Will Say and at Section F of the JWS.

31. In relation to paragraph 5.43 of the Will Say statement, a condition is recommended requiring that, at Engineering Plan Approval, the applicant must provide an assessment that demonstrates the overland flow paths in the 1% AEP + 3.8 degree climate change event within the proposed public roads will not result in hazardous conditions for road users and will meet the requirements of the Road Drainage chapter of the Transport Design Manual and Auckland Council's Stormwater Code of Practice. The assessment must also demonstrate that management of flows within the development will not result in hazardous conditions in public roads outside the development, or worsen already existing hazardous conditions.

32. A related concern is that assessment of flooding impacts on Old Wairoa Road has been deferred to detailed design stage. The applicant has acknowledged that the proposed development will result in increased flood depths within the existing road reserve during the 1% AEP + 3.8 degree climate change event and proposes mitigation through megapits. However, the adequacy of this mitigation has not been demonstrated through modelling. Reliance on piped networks to mitigate flood hazard is not supported due to the known risk of blockages at surface inlets.

33. A condition is recommended requiring that, at Engineering Plan Approval, the applicant must provide an assessment demonstrating that the proposed development will not result in increased flooding within Old Wairoa Road, with details of any required mitigation infrastructure to be provided to Auckland Transport and designed in accordance with Auckland Transport's

Transport Design Manual and Auckland Council's Stormwater Code of Practice.

CONDITIONS TO ADDRESS POTENTIAL GROUND SETTLEMENT ASSOCIATED WITH GROUNDWATER DRAWDOWN – FILL COMPACTION

34. Groundwater drawdown impacts and required mitigation are addressed at paragraphs 6.3-6.25 of the Will Say and at Sections J-M of the JWS.

35. The Panel has asked whether there are *“conditions to address potential ground settlement associated with groundwater drawdown”*, and whether there is agreement on such conditions?

36. Whilst there remains some uncertainty at this time as to the extent and implications of ground settlement associated with groundwater drawdown there are conditions that describe the works necessary to assess and consider appropriate mitigation measures.

37. The applicant has proposed a new condition (condition 45A) requiring further groundwater level monitoring to predict drawdowns at site boundaries and neighbouring properties, assessment of ground settlement effects on structures not owned by the consent holder, and inclusion of appropriate mitigation measures (such as slurry walls) in designs submitted for Engineering Plan Approval. The condition requires detailed design and Council certification at least 15 working days prior to excavations extending below the groundwater table.

38. However, in this instance, 15 working days is considered insufficient for Council's Geotechnical Practice Lead to adequately review geotechnical, groundwater modelling and settlement assessment reports and confirm that the assessment, recommendations and conclusions are appropriate. A minimum of 40 working days prior to the commencement of any earthworks and excavations that may impact on groundwater drawdown would be more appropriate. The condition should also be amended to ensure that the ‘detailed design’ information includes geotechnical, groundwater modelling and settlement assessment reports. The condition should also be amended to make it clear that, through the certification process, the Council will review and accept the submitted information to confirm that the assessment, recommendations and conclusions are appropriate (the draft condition is presently silent in relation to what is being certified).

39. While addressing the Panel's question on groundwater drawdown conditions, we also comment on related geotechnical matters concerning fill compaction, as these are interconnected aspects of ground settlement management for the development. These matters require additional conditions beyond those currently proposed.

40. At expert conferencing, Will Moore stated that *"in cut and fill areas, fill will be used in similar areas, e.g. peat to peat / clay to clay"* (JWS Section M). However, this approach raises several concerns:

(a) Based on the submitted Earthworks Plans, the depth of fill over large areas of Zone 1 (Peat) appears to be greater than 2.0m. This may not be consistent with previous developments in the area where fill heights have been approximately 1.0m.

(b) This approach is inconsistent with NZS 4431:2022, which classifies peat as an unsuitable material for use as structural fill to raise ground levels, building platforms, or road levels. Unless a site-specific earthworks specification is prepared to demonstrate that engineered fill comprising peat and/or other organic materials can achieve performance at least equivalent to the acceptable materials defined in Table A1 of NZS 4431, this approach is not considered to be compliant to the standard.

(c) The application of peat fill material to build-up ground levels in Zone 1, peat areas, also requires additional conditions. The Applicant's earthworks management plan must include an assessment of the environmental effects associated with bulk excavation and conditioning of peat / organic soils for re-use as above ground fills and the creation of materials that are susceptible to degradation through aerobic decomposition, CO_2 emission, physical breakdown due to biochemical decomposition involving symbiotic organisms (worms / termites etc) and a significant shrink / swell response to moisture content change.

41. Section 8.4.1 of the lodged Geotechnical Assessment Report (J01627, Rev 0 dated 6 December 2024, prepared by LDE) notes that this methodology of organic filling has been widely applied in nearby peatland developments over the past 10 years. Further supporting information, such as site-specific earthworks specifications, verification testing, and geotechnical completion reports from those developments, has been requested from the applicant's

expert to demonstrate the effectiveness and feasibility of this approach (email from Grant Murray to Shane Lander on 8 December 2025)..

42. The provided settlement analysis considers only building loads associated with one-, two-, and three-storey residential dwellings and does not account for settlement induced by the proposed bulk earthworks and associated fill placement. As a result, potential ground settlement risks have not been adequately addressed. We strongly recommend that conditions be imposed requiring detailed settlement assessment, trial embankment design, and settlement monitoring to better manage and control these risks. Further details are outlined in the Healthy Waters memo dated 4 August 2025.

CONDITIONS TO ENSURE THE OPERATION AND STRUCTURAL INTEGRITY OF MCLENNAN DAM

43. McLennan Dam is addressed at paragraphs 5.33-5.36 of the Will Say and at Section E of the JWS.

44. The McLennan Dam is a critical component of the downstream stormwater network. The current dam structure requires raising, upgrading, and the issuance of a new building consent to meet the current dam safety standards. These works are forecast in the Healthy Waters Asset Management Plan and should be completed prior to diverting any additional catchment area that was not accounted for in its original design parameters. To ensure this prerequisite is met, we propose amendments and additional conditions to the Stormwater Management Plan requiring the dam upgrade as a condition of development.

45. A new condition 27B McLennan Dam Upgrade is recommended as follows:

> *No additional stormwater catchment area beyond the Future Urban Zone that naturally drains to the Pahurehure Inlet Catchment shall be diverted to the McLennan Dam until the dam has been upgraded by Auckland Council to meet current New Zealand Building (Dam Safety) Regulations 2022 for a High Potential Classification (PIC) dam.*
>
> *Prior to undertaking earthworks that will divert overland flows into the Pahurehure Inlet Catchment, the consent holder must demonstrate that any approvals required under the Auckland Council Stormwater Bylaw 2015 have been obtained.*
>
> *Advice note: For the avoidance of doubt, the connection of additional catchment to the upstream dam network would be considered a new*

service connection under the Auckland Stormwater Bylaw 2015 (Clause 9, Item 3).

OTHER COMMENTS ON DRAFT CONDITIONS

46. This section addresses some specific conditions arising from the matters discussed above. It does not repeat previous comprehensive comments on all proposed conditions (see e.g. the Healthy Waters and Flood Resilience Memo dated 4 August 2025).

47. If consent is granted, the following additional items are recommended to widen the scope of the Stormwater Management Plan proposed under Condition 27, specifically to address and demonstrate compliance discharges to private farm drains and roadside table drains. We also recommend conditions to include flood hazard warning signage for unresolved flooding risks on Airfield Road and Hamlin Road.

48. A new condition 27C Discharges to Private Farm Drains and Roadside Table Drains is recommended:

> *Any stormwater discharged to private farm drains and roadside table drains downstream of the development must be managed in a way that:*
>
> *(a) Avoids the likelihood of damage or nuisance to downstream property or road users;*
>
> *(b) Ensures that there is no increase in flood depth, extent, or duration for immediate downstream owners during 2-, 10-, and 100-year ARI storm events; and*
>
> *(c) Includes erosion and scour protection measures at discharge points.*
>
> *Advice note: Nuisance under 27C(a) is defined under Section 29(A) of the Health Act.*

49. A new condition 27D Hazard warning signage is recommended:

> *The Consent Holder must install and maintain flood hazard warning system which shall include but not be limited to automatic signage which engages in flooding events greater than the 2-year ARI storm event to divert traffic from Hamlin Road and Airfield Road to an alternative route.*

50. A new condition 164(I) Pre-Commencement: Reserve Landscaping Design (all proposed reserves to vest) is recommended:

All reserves, including stormwater management reserves, must be designed to allow machine-accessible maintenance, including mowing and other routine operations. Where reserves are underlain by peat soils, the geotechnical analysis must confirm that the design accommodates machine loading requirements, particularly for areas intended for mowing or other maintenance activities. This analysis must include any necessary mitigation measures to ensure long-term stability and functionality of the reserve and associated assets

DATED the 9th day of December 2025

Andrew Chin

Griffin Benton-Lynne

Dr Roja Tafaroji

Grant Murray

Sunfield Fast-track

Auckland Council Specialist Memo

Annexure 1:

Private Farm Drains and Stormwater Risk

Annexure prepared by Andrew Chin

Date: 9 December 2025

Purpose and Scope

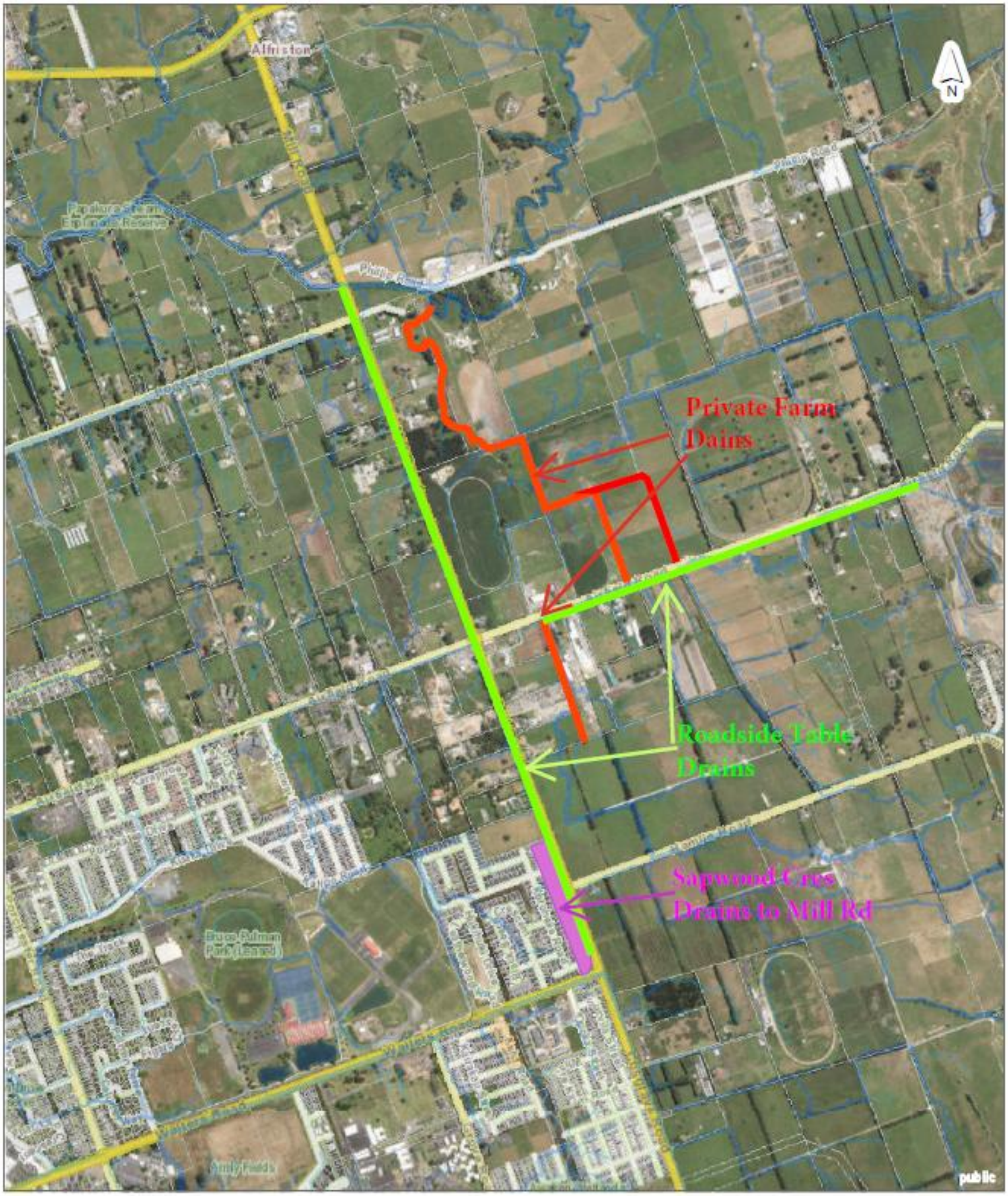
1. This annexure addresses the stormwater discharge proposal to private farm drains within the Sunfield Fast-track Application (Application) and the associated operational, maintenance, and resilience risks.
2. It incorporates findings from a site visit on 4 December 2025 assessing the current condition of open drains in the Takanini area and a review of Councils operational responses and costs related to the open drains. The site visit was undertaken by Healthy Waters operations staff at Andrew Chin's direction, and Andrew Chin, having visited the site / area on multiple occasions, can corroborate the operations observations.

Background and Context

3. The Sunfield Application proposes to discharge stormwater from a catchment of approximately 140Ha to 2.3km of existing private farm drains that run through, or adjacent to 8 downstream properties north of the development as part of its stormwater management strategy.
4. Council modelling confirms these drains have lower hydraulic capacity than the Mill Road table drain, which is a public asset maintained by Council.
5. 3.9Ha of the Sapwood Crecent area within the Mill Road Development (2015–2020) discharges to the Mill Road table drain and has experienced significant operational issues despite being a public system with higher capacity.
6. The figure below shows the locations of the private farm drains and road side table drains.

Auckland Council

Map



Takanini Drains

0 80 160 240
Meters

Scale @ A4
= 1:15,000

Date Printed:
8/12/2025

Auckland Council

Operational and Maintenance Risks

7. Private farm drains are not public assets; maintenance responsibility rests with landowners, not Council.
8. Increased reliance on these drains introduces risks of blockages from weeds and litter, inconsistent or inadequate maintenance, and unclear accountability for performance during high-intensity rainfall events.
9. Council experience shows even public drains require significant upkeep. In the past 5 Years:
    a. The 2.2km long Mill Road table drain maintenance has cost $349,750.09
    b. Maintenance of the Hamlin Road table drains has cost $118,420.15
    c. 27 Complaints were received from Sapwood Crescent and maintenance of the drains at Sapwood Crescent has cost $48,012.09.

Current State of Drains – Site Visit Findings (4 December 2025)

10. Operational issues impacting the operation and maintenance of the public drainage in the Takanini area include:
    a. Overhanging vegetation from private properties that requires clearing to prevent blockages and enable access for drain clearance.
    b. Existing private driveway culverts that do not match the natural drain gradient, restricting flow conveyance.
    c. Weed growth limiting the drain's capacity.
    d. Illegal dumping and litter restricting stormwater flow within the open drain.
    e. Traffic management requirements that increase the complexity, time, and cost of carrying out routine maintenance.
    f. Stagnant water (exacerbated by reduced flow from blockage) generates odour complaints
11. Photograps below taken on the 4th of December 2025 illustrate the operational issues.

a. Mill Road

b. Hamlin Road

c. Airfield Road

d. Sapwood Crescent (to Mill Road drain):

Strategic Considerations

12. The Sunfield development will generate significant litter and gross pollutants, particularly during the construction of dwellings, which will increase the risk of blockages in private farm drains if these remain the primary discharge route.
13. The development will also introduce a large number of new residents living adjacent to open drainage networks within the site. These residents will be dependent on free-flowing downstream private drains for flood protection and amenity.
14. Based on issues already observed at Sapwood Crescent including odour problems and surface flooding during wet periods, similar complaints and operational challenges are expected if reliance on the private drains in their current condition is enabled.
15. The existing maintenance issues identified demonstrate the need for machine access to internal drains, swales, and diversion channels to ensure effective long-term management.
16. The preferred method of draining this catchment is to construct a higher-capacity channel to the Papakura Stream, similar in scale and function to the Awakeri Wetlands, and to ensure it is publicly owned and maintained. This approach would avoid long-term issues such as those experienced at Sapwood Crescent and provide a resilient, future-proofed solution.