

IN THE MATTER of the Resource Management Act 1991(RMA)

AND

**IN THE MATTER of Drury Metropolitan Centre Consolidated Stages
1 and 2 (the Project)**

JOINT WITNESS STATEMENT (JWS) IN RELATION TO:

Topic: Stormwater and Flooding (1)

Date 2 October 2025

Expert Conferencing Held on: 2 October 2025

Venue: Brookfields Lawyers Boardroom and Online

Independent Facilitator: Marlene Oliver

Admin Support: Lisa Mattson

1 Attendance:

1.1 The list of participants is included in the schedule at the end of this Statement.

2 Basis of Attendance and Environment Court Practice Note 2023

2.1 All participants agree to the following:

- (a) The Environment Court Practice Note 2023 provides relevant guidance and protocols for the expert conferencing session;
- (b) They will comply with the relevant provisions of the Environment Court Practice Note 2023;
- (c) They will make themselves available to appear before the Panel;
- (d) This statement is to be filed with the Panel and posted on the Council's website.

3 Matters considered at Conferencing – Agenda and Outcomes

Attachment A is the Summary Statement of Pranil Wadan and Bidara Pathirage – Stormwater – dated 30 September 2025.

Agenda Item A. ECP Section 67 query (5 September 2025)

Drawing no.P24-447-01-3200DR shows the Stage 2 catchment boundary along the eastern side of Lot 42, however there is a blue arrow indicating runoff from a contributing catchment outside the Stage 2 area, flowing in a westerly direction towards Wetland 2-1. Please advise if the proposed stormwater pipes and any other parts of the proposed stormwater infrastructure in Stage 2 have been designed for flow originating from outside Stage 2 and how this is addressed with respect to future land use assumptions in assessing runoff and relevant consent conditions.

This is to be responded to by the Applicant on 19 September 2025. Parties to confirm if the query has been satisfactorily addressed.

3.1 Expert Conferencing 2 October Comments

- 3.1.1 Refer to Attachment A “Woods Responses column” for additional technical information.
- 3.1.2 All stormwater experts agree that the runoff from a contributing catchment outside the Stage 2 area, flowing in a westerly direction towards Wetland 2-1 has been satisfactorily addressed with respect to stormwater management within the Stage 2 area.
- 3.1.3 All stormwater experts agree that flood hazards within the road corridor are safe for vehicles and pedestrians and that further detail can be provided at the EPA stage.

Agenda Item B. Matters arising from Nigel Mark-Brown review (2 September 2025)

A copy of Mr Mark-Brown’s review is attached as Annexure 1 (summarising the issue raised by Council [Healthy Waters or Ecology], the Applicant’s response and the resulting query). In summary, the following issues are identified for expert conferencing:

1. Flood Assessment

1.1 Issue: *Final copy of the hydraulic model prior to Engineering Plan Approval is requested and prior to establishment of any impervious surfaces authorised by this consent. (Council note that the models show that providing attenuation has benefit which is contrary to the Applicant’s assessment)*

Is this matter satisfactorily addressed by proposed flood management Conditions 80, 80B, 80C and 80D?

3.2 Expert Conferencing 2 October Comments

- 3.2.1 All stormwater experts and planners agree that Conditions 80, 80A, 80B, 80C, 80D, and 80E be amended as set out below.

Condition 80: The consent holder must ensure that the finished floor levels (FFLs) for all development enabled under this consent are established based on flood modelling using

the 1% Annual Exceedance Probability (AEP) rainfall event, incorporating a climate change temperature increase of 3.8°C.

All FFLs must include freeboard in accordance with the requirements set out in the Auckland Council Stormwater Code of Practice (Version 4).

3.2.2 Condition 80A: The building in Lot 40 must be developed such that at the time of construction all FFLs must:

- a. Include freeboard in accordance with the requirements set out in the Auckland Council Stormwater Code of Practice Version 4 (SWCoP); and
- b. Be elevated above the 1% AEP peak flood level when considering culvert(s) blockages set out in the SWCoP Version 4.

3.2.3 Condition 80B: Prior to commencement of earthworks, the Consent Holder must demonstrate that the proposed development does not result in an increase in upstream or downstream flood hazard and flood risk that adversely affects people, property and infrastructure, measured against existing land use and existing rainfall and the modelled rainfall depths identified in the table below for the 50% AEP, 10% AEP, and 1% AEP storm events.

To demonstrate compliance with this condition, the Consent Holder must submit a supporting hydraulic model to Council for review and certification.

Average Recurrence Interval (ARI)	24-hour rainfall depth (mm) for Drury Centre Stage 2		
	No climate change	2.1° CC	3.8° CC
50% AEP	56	61	71
10% AEP	115	130	150
1% AEP	188	220	249

Advice Notes:

1. Existing land use includes existing stormwater infrastructure, Drury Train Station build landform and 100% imperviousness, and existing landform based on LiDAR 2016 surface and existing imperviousness across the remainder of the catchment.
2. Proposed development includes existing land use and proposed Drury Centre Stage 2 landform and imperviousness.
3. For the purposes of condition, adverse effect refers to More Vulnerable Activities as defined in Chapter J1 of the AUP(OP).

- 3.2.4 Condition 80C: Prior to the commencement of earthworks, the Consent Holder must submit a finalised proposed surface design plan to Council for certification from a suitably qualified experienced practitioner that requirements of condition 80B are met. This plan must demonstrate that there is no increase in adverse effects as a result of the loss of flood storage within the existing Fitzgerald Stream floodplain from the proposed works
- 3.2.5 Condition 80D: To be deleted.
- 3.2.6 Condition 80E: At Engineering Plan Approval (EPA), the consent holder must submit an updated site-specific design (including revised assessment) prepared by a suitably qualified experienced practitioner for Wetland 2-2 and the rock chute. The design (including revised assessment) must identify any adequate protection measures necessary to ensure the protection of Wetland 2-2 from on-going erosion of the Hingaia Stream and the protection of Natural Wetland 2 from erosion from the development flows.

1.2 Issue: *The Applicant must provide the final proposed finished surface design that demonstrates no loss of storage volume within the Fitzgerald Stream 1% AEP floodplain.*

Can this matter be addressed by proposed flood management conditions 80, 80B, 80C and 80D?

3.3 Expert Conferencing 2 October Comments

- 3.3.1 Refer to 3.2 above.

1.3 Issue: *The Applicant must provide an updated Overland Flow Path Assessment to demonstrate that the overland flows can be managed to not create a flood hazard and risk to future public road users*

The results of the Applicant's overland flow assessments indicate no unacceptable hazard to public road users. Does HW accept this matter has been satisfactorily addressed?

3.4 Expert Conferencing 2 October Comments

- 3.4.1 The Overland Flow Path Assessment for the intersection of Road 2 and Road 1 (Stage 1 Drury Centre) was completed under EPA reference number: ENG60429650. The assessment demonstrated that the overland flows are directed south as per the assessment provided by the applicant as part of the Stage 2 application. All stormwater experts agree no further assessment is required, subject to the experts for the applicant providing an updated contour plan showing the raised intersection to demonstrate that the conveyance of the overland flow path is consistent with the assessments provided.

2. Flood and Culvert Upgrade Issues Lot 40

2.1 Issue: *The Applicant must provide revised development layout for Lot 40 that provides a minimum of 20m of 'green space' offset from the Flanagan Road culvert to any buildings or infrastructure (including access roads or driveways, and assess the risk of flooding to proposed buildings and infrastructure adjacent to Fitzgerald Stream from potential blockages of Flanagan Road culvert.*

Is flood management condition 80A sufficient to address flood risk to a future building on Lot 40?

3.5 Expert Conferencing 2 October Comments

- 3.5.1 Experts for Healthy Waters explained: The proposed offset from Flanagan Road culvert was requested to enable the delivery of a Best Practicable Option for the upgrade of this culvert. As already outlined under Item 1.2, the Flanagan Road culvert upgrade is essential to support the development of the Drury East Precinct. The upgrade of this culvert is included in the Auckland Council's 2025 Development Contributions Policy, however the works are not planned until post 2040.

The requested 20m offset (on the northern boundary of Lot 40) may be necessary to ultimately allow for construction access for plant and equipment and facilitate installation of necessary erosion and inlet blockage protection measures. The additional offset will also be required to enable maintenance access from the true left bank.

Due to the location and alignment of the existing Flanagan Road culvert, the installation of a new culvert from the other side of the stream would require Council to acquire additional properties. MI confirmed the preferred alignment is along the true right bank of the stream, but there is considerable uncertainty about where the culvert location will be until detailed design is carried out. There are likely to be significant issues to do with possible clashes with existing services including water mains, wastewater infrastructure etc.

For context, it is also important to note that upstream of the proposed development, under Drury East Development Stages 1-3, the Fitzgerald Stream required the vesting of a 20m wide esplanade reserve under the RMA 1991.

Healthy Waters position that a 20m offset is required from the location of the existing culvert remains.

- 3.5.2 The applicant's experts agree that the 20m area of land on Lot 40 on the left bank will not be built on for a period of two years from the date of this consent to allow Auckland Council to advise whether or not the land will be acquired based on terms the same as the Public Works Act.

- 3.5.3 Proposed Condition: The consent holder must not construct the building and associated infrastructure on Lot 40 within two years from the date of the grant of this consent. This is to allow Auckland Council (Healthy Waters) to confirm if a specified offset is required to enable the Flanagan Road culvert upgrade.

Where Auckland Council:

- a. confirms that an offset is required then private land within this offset must be acquired under the terms of the Public Works Act; or
- b. does not confirm that an offset is required within two years from the date of the grant of this consent, the consent holder will develop Lot 40 in accordance with this consent.

- 3.5.4 All stormwater experts agree with this proposed condition.

2.2 Issue: *A future supplementary culvert is essential to enable the ultimate development of the upstream contributing catchment. The proposed development of Lot 40 including*

Building H2 and ancillary hardstand areas presents a significant risk to the practicality of the Flanagan Road culvert upgrade due to the proximity of the proposed building and infrastructure being off-set by less than 10m from the top of stream bank. HW recommends that the extent of proposed development within Lot 40 is amended so that a minimum of 20m offset is provided from the top of bank of the stream to the edge of any building or infrastructure

Is the HW recommendation necessary that requires the extent of proposed development within Lot 40 is amended so that a minimum of 20m offset is provided from the top of bank of the stream to the edge of any building or infrastructure to enable adequate space for a future culvert upgrade?

Is the HW recommendation necessary or justified taking into account whether construction access for a culvert upgrade is necessary on the applicants side of the stream rather than the other side, together with the extent of land needed for civil engineering activities for the culvert upgrade and possible legal mechanisms that may be appropriate or necessary to allow future access onto Lot 40 to upgrade the culvert.

3.6 Expert Conferencing 2 October Comments

3.6.1 Refer to 3.5 above.

3. Erosion Assessment

Issue 3.1: *The Applicant must provide an updated erosion assessment demonstrating that the proposed development will not increase the risk of erosion to existing Natural Wetland 2 and the Hingaia Stream (downstream of the discharge point associated with Wetland 2-2) and the overland flow path rock chute from Area 2.*

Does HW accept the Applicant's assessment that the proposed development will not increase risk of erosion to Hingaia Stream

Does HW agree that stream protection adjacent to Wetland 2-2 can be undertaken per detailed design stage as part of EPA?

Does HW agree that the design of the rock chute can be part of detailed design through the EPA?

Does HW agree any future erosion protection of Road 2, should not be responsibility of developer of Stage 2?

Council also refer to the conclusion regarding Natural Wetland 2. An Erosion Screening Tool (EST) analysis (indicated by the red line) is recommended on the Natural Wetland 2 channel to better understand the pre- and post-development impacts. Although the development area is relatively small compared to the entire catchment (0.44%), the local impact at the connection point (indicated by the yellow line) should not be overlooked. Erosion control measures should be considered at this location.

3.7 Expert Conferencing 2 October Comments

3.7.1 In Attachment A, the applicant's experts provided additional information.

3.7.2 All stormwater experts agree that this matter is addressed in the discussion above under 3.2 in relation to conditions 80 – 80E.

Issue 3.2: *The Applicant must provide an erosion assessment of the Fitzgerald Stream to understand the potential migration of the stream overtime and demonstrate this will not undermine the proposed structures adjacent to the stream.*

Does HW agree with the Applicant's response on this matter?

Does HW accept that these matters have been satisfactorily addressed by the Applicant and proposed Condition 80E is appropriate?

3.8 Expert Conferencing 2 October Comments

- 3.8.1 All stormwater experts agree that this matter is addressed in the discussion above under 3.2 in relation to conditions 80 – 80E.

4. Stormwater Management Devices

4.1 Issue: *The Applicant must either propose to vest Wetland 2-1 and Wetland 2-2 as public assets or confirm acceptance that any stormwater network upstream of the Stormwater Management Wetlands cannot be vested as public.*

Can HW confirm that it will require the network discharging to Wetlands 2-1 and 2-2 to be private? If so, can the Applicant confirm that the plans will be updated?

3.9 Expert Conferencing 2 October Comments

- 3.9.1 The stormwater experts agree that there can be a combination of public and private stormwater systems.
- 3.9.2 The applicant's experts undertake to provide further information clearly showing public and private stormwater systems and where this might need to be reflected in the proposed conditions.
- 3.9.3 To give effect to para 3.9.2, the experts for the applicant, Healthy Waters, Auckland Transport, and Auckland Council propose to file a supplementary Joint Witness Statement with the Panel by 5pm Friday 10 October 2025. Note: the applicant's experts to clarify whether NZTA also need to be a party to this Statement.

5. Ecology

5.1 Issue: *There is uncertainty as to the effects that could arise from the modification of the catchment to Wetland 1. The size of the contributing catchment of Wetland 1 is expected to be reduced by 50%. The Applicant's ecologist has described this as ranging from a 'low', up to a 'moderate' magnitude of effect. The Applicant's effects assessment is focused on the area of the wetland changing as a result of the reduced surface water inputs. However, there is no assessment whether sufficient hydrology would remain to retain a wetland in this location permanently, or the duration throughout the year is suitable for hydrology to be retained.*

Does HW agree with and accept the Applicant's response of 28 August? If not what further assessment or conditions are required?

3.10 Expert Conferencing 2 October Comments

- 3.10.1 JS and MM accept the applicant’s response of 28 August 2025 and do not consider that any further assessment or conditions are required.

6. Stormwater conditions with remaining differences

Refer to condition differences (at pages 7 – 12 of Annexure 1) and advise of position.

3.11 Expert Conferencing 2 October Comments

- 3.11.1 Attachment B includes pages 7-12 of Nigel Mark-Brown’s Summary Statement (24/09/2025). The following agenda items refer to this document.
- 3.11.2 Items 32 and 38.
- 3.11.3 The review of these conditions is more appropriately done as part of the process outlined under 3.9 above.
- 3.11.4 Items 34, 35, and 36.
- 3.11.5 The stormwater experts agree that these proposed conditions are no longer relevant as there are no public stormwater management devices.
- 3.11.6 Item 37, 39, 40, and 41.
- 3.11.7 The stormwater experts agree that these proposed conditions are no longer relevant as the matters have been addressed under para 3.2 above and the re-drafting of conditions 80 – 80E.
- 3.11.8 Item 42.
- 3.11.9 The stormwater experts agree that a condition to address “Large Format Retail SMAF-1 Retention Requirements” is appropriate. The specific wording to be finalised by the experts as part of para 3.9 (relating to the supplementary expert conferencing session and JWS)

7. Other conditions raised by experts for Healthy Waters

3.12 Expert Conferencing 2 October Comments

- 3.12.1 Stormwater discharge condition 4 to be edited to refer to Version 4 of the Stormwater Code of Practice, dated 1 July 2025.
- 3.12.2 Stormwater discharge condition 7 to be edited to refer to the Version 4 of the Stormwater Code of Practice, dated 1 July 2025.
- 3.12.3 Subdivision condition 5 to be discussed as part of para 3.9
- 3.12.4 New conditions proposed by Healthy Waters (38A and 38B) to be discussed as part of para 3.9.

4 PARTICIPANTS TO JOINT WITNESS STATEMENT

4.1 The participants to this Joint Witness Statement, as listed below, confirm that:

- (a) They agree that the basis of their participation and the outcome(s) of the expert conferencing are as recorded in this Joint Witness Statement; and
- (b) They agree to the introduction of the attached information – Refer to paragraph 3 and 3.11.1 above; and
- (c) They have read the Environment Court’s Practice Note 2023 and agree to comply with it; and
- (d) The matters addressed in this statement are within their area of expertise; and
- (e) As this session was held both in-person and online, in the interests of efficiency, it was agreed that each expert would verbally confirm their position in relation to this para 4.1 to the Independent Facilitator and the other experts and this is recorded in the schedule below.

Confirmed: 2 October 2025

EXPERT’S NAME & EXPERTISE	PARTY	EXPERT’S CONFIRMATION REFER PARA 4.1
Nigel Mark-Brown (NMB), Stormwater Engineer	Technical Advisor to the Panel.	Yes
Pranil Wadan (PW), Stormwater Engineer	Kiwi Property (Applicant) Consultant	Yes
Bidara Pathirage (BP), Stormwater Engineer	Kiwi Property (Applicant) Consultant	Yes
Nick Roberts (NR), Planning	Kiwi Property (Applicant) Consultant	Yes
Mary Wong (MW), Planning	Kiwi Property (Applicant) Consultant	Yes
Colin Dryland (CD), Engineering	Kiwi Property (Applicant) Consultant	Yes
Rieke Behrens (RB), Ecology	Kiwi Property (Applicant) Consultant	Online for Agenda Item 5.1 (section 3.10) Yes

Mark Iszard (MI), Stormwater Engineer	Auckland Council Employee - Auckland Council, Healthy Waters	Yes
Hillary Johnston (HJ), Senior Stormwater Specialist	Auckland Council Consultant	Yes
Dali Suljic (DS), Stormwater Engineer	Auckland Council Consultant	Yes
Martin Meyer (MM), Senior Stormwater Specialist	Auckland Council Employee – Auckland Council	Yes
Griffin Benton-Lynne (GBL), Stormwater Engineer	Auckland Transport Consultant	Online Yes
Masato Nakamura (MN), Planning	Auckland Council Consultant	Yes
Jason Smith (JS), Ecology	Auckland Council Consultant	Online for Agenda Item 5.1 (section 3.10) Yes
Russell Butchers (RB), Planning	Auckland Council Employee – Auckland Council, Principal Project Lead.	Yes
Matt Ford (MF), Planning	Auckland Transport Employee – Auckland Transport, Development Planner	Yes

IN THE MATTER Drury Metropolitan Centre Consolidated
Stage 1 and 2

**Summary Statement of Pranil
Wadan and Bidara Pathirage**

Stormwater

Dated: 30 September 2025

INTRODUCTION - Pranil Wadan

1. My full name is Pranil Wadan. I am a Technical Director and the General Manager of Water Infrastructure & Planning at Wood & Partners Consultants Limited.
2. I hold a Bachelor of Engineering degree from the University of Auckland (2008). I have over sixteen years' experience in stormwater design, flood risk assessments and stormwater management for land development. I am a Chartered Professional Engineer (CPEng) and a Chartered Member of Engineering New Zealand (CMEngNZ) and a member of Water New Zealand.
3. I have been the principal author and lead stormwater engineer for a wide range of stormwater management plans and flood modelling reports to support Woods' land development, urban design and planning teams.
4. I have been involved in and prepared numerous catchment scale flood models, detailed stormwater pipe models and integrated catchment management plans for private clients as well as for district and regional councils.
5. I have expertise in stormwater and flood management. I have presented evidence in multiple Environment Court hearings and a Board of Inquiry hearing.

CODE OF CONDUCT

6. I have read and agreed to comply with Code of Conduct for Expert Witnesses contained in the Environment Court Practise Note 2023. This evidence is within my area of expertise, except where I state that I am relying upon the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

INTRODUCTION - Bidara Pathirage

7. My full name is Bidara Liyathambara Charya Pathirage. I am a Senior Associate – 3 Waters Engineer at Wood & Partners Consultants Limited. I hold

a Bachelor of Engineering (Honours) degree from the University of Auckland. I have over ten years' experience in stormwater design, flood risk assessments and stormwater management. I am a Chartered Professional Engineer (CPEng) and a Chartered Member of Engineering New Zealand (CMEngNZ) and a member of Water New Zealand.

8. I have experience as a stormwater engineer for a range of stormwater management plans and flood modelling undertaken to support various land development projects.

CODE OF CONDUCT

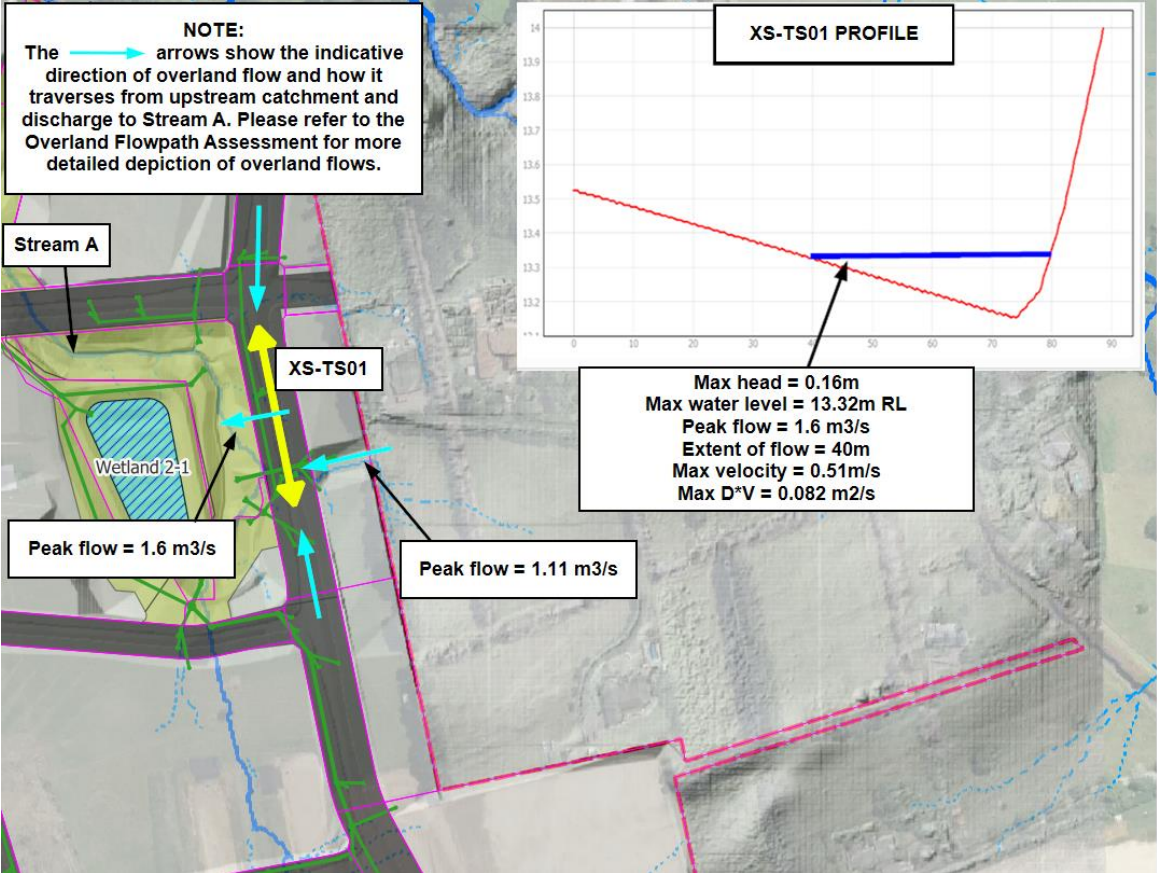
9. I have read and agreed to comply with Code of Conduct for Expert Witnesses contained in the Environment Court Practise Note 2023. This evidence is within my area of expertise, except where I state that I am relying upon the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

SCOPE

10. This document presents as our summary and 'will say' statements in response to queries from Council, N. Mark Brown and the Agenda items.
11. This should be read in conjunction with the following documents:
 - i. Drury Metropolitan Centre Fast-track, Auckland Council Specialist Memo, Annexure 7 – Woods Response, dated 22/08/2025
 - ii. Stormwater Assessment Report, Drury Centre Stage 2 – Version 5 dated 22/08/2025
 - iii. Response s67 further information recommended by Auckland Council Healthy Waters – prepared by B&A with input from Woods, 05/08/2025
 - iv. Response s67 further information memorandum recommended by Auckland Council – prepared by B&A with input from Woods, 24/07/2025

Drury Metropolitan Centre - Fast-Track Stormwater matters – matters for expert conferencing

Summary statement prepared by P Wadan and B Pathirage (30/09)

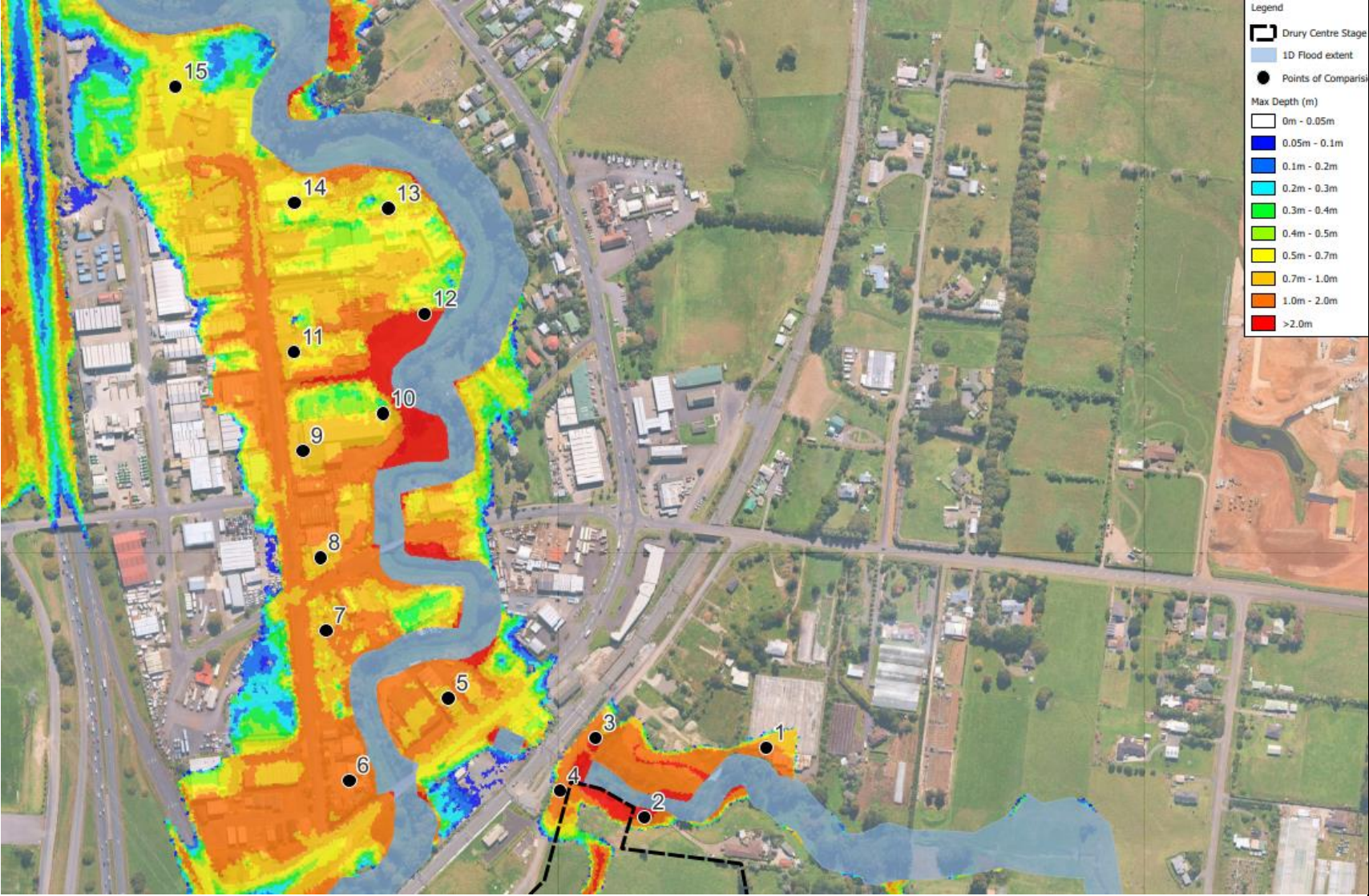
Item	S67 Request per question for Applicant from NMB 2 September 2025 on extent of catchment served by proposed stormwater pipes and treatment devices	Woods Response per Road 25 Culvert Design Memo 18 September 2025 and B&A s67 response memo 19 September 2025	Additional Agenda Items (23/09/2025) – Highlighted Items	N. Mark-Brown comment	Woods Responses: - Agenda items from 23/09 N. Mark-Brown comment 24/09
A ECP Section 67 query (5 September 2025)	Drawing no.P24-447-01-3200DR shows the Stage 2 catchment boundary along the eastern side of Lot 42, however there is a blue arrow indicating runoff from a contributing catchment outside the Stage 2 area, flowing in a westerly direction towards Wetland 2-1. Can the Applicant please advise if the proposed stormwater pipes and any other parts of the proposed stormwater infrastructure in Stage 2 have been designed for flow originating from outside Stage 2 and how this is addressed with respect to future land use assumptions in assessing runoff and relevant consent conditions?	The Woods memo advised that Stream A, including the proposed future stream crossing on Road 6, has adequate capacity to convey runoff generated from the upstream catchment. It described the hydrological and hydraulic design of the proposed 900 mm diameter culvert under Road 25 to convey this runoff. It advised that in the 100 year ARI storm event, with 100% blockage of the culvert, road overtopping to depth of 142 mm and length of 24 m would occur. This runoff will not extend laterally onto Lot 41 and 42. During detailed design stage, consideration will be given to the maximum water level on Road 25 (inclusive of scenario when culvert is blocked and runoff overtops onto the road), when finalising the finished floor levels of the buildings located within the lots. No existing habitable floor levels located outside the development are deemed to be impacted. The <i>Overland Flow Path Assessment Memorandum</i> (this is dated 14/7/25, in the Woods Stormwater Assessment Report v5 part 2, being Attachment 13 of the Applicant’s stormwater responses circa 28 August 2025) includes a road safety assessment for the entire road network within Stage 2 (inclusive of Road 25) with consideration of MPD impervious coverage during the 100-year ARI storm event with allowance for 3.8°C future climate change). The assessment considers the runoff generated from the	Drawing no.P24-447-01-3200DR shows the Stage 2 catchment boundary along the eastern side of Lot 42, however there is a blue arrow indicating runoff from a contributing catchment outside the Stage 2 area, flowing in a westerly direction towards Wetland 2-1. Please advise if the proposed stormwater pipes and any other parts of the proposed stormwater infrastructure in Stage 2 have been designed for flow originating from outside Stage 2 and how this is addressed with respect to future land use assumptions in assessing runoff and relevant consent conditions. This is to be responded to by the Applicant on 19 September 2025. Parties to confirm if the query has been satisfactorily addressed.	The key aspect of this issue is whether the Road 25 longitudinal section is appropriate to safely pass the 100 year flow from the upstream catchment across the road, together with the 100 year flows flowing along the road, while ensuring vehicle and pedestrian safety. On page 4 of the Applicant’s <i>Overland Flow Path Assessment Memorandum</i> the site plan shows the location of assessed cross-sections XS2 and XS3 adjacent to the location of the proposed 900 mm diameter culvert under the road. Flow depth and velocity values have been derived for these cross-sections but not for the combination of overland flow along the road and across the road due to culvert overflow. I consider that this assessment is required to adequately assess vehicle and pedestrian hazard at this location prior to finalising the road longitudinal grade levels.	<i>The agenda item notes this query is to be responded by the Applicant on 19/09. N. Mark-Brown has reviewed the response provided on the 19/09 and raised an additional query which is responded to below.</i> Overland flowpath on Road 25 will traverse in two directions, longitudinally and transversely. There is a low point at Road 25, adjacent to the location of the culvert where the water will pond and discharge to Stream A. <i>The Overland Flow Path Assessment Memorandum</i> demonstrates that the secondary flowpath design is safe for vehicles and pedestrians when overland flow traverses longitudinally on Road 25. It is noted that the analysis at XS-2 and XS-3 accounts for internal and external catchment area. Our assessment confirms that the culvert does not overtop when it is operational and only under complete blockage assumptions. As raised by Council and N. Mark Brown, in an event of the culvert overtopping, the runoff from external catchment area will flow transversely over Road 25 and discharge to Stream A. To demonstrate safe passage of runoff in this case, an additional cross-section at the crest of Road 25 has been analysed (named XS-TS1) as shown in the image below. The cross-section has been conservatively analysed as a broad-crested Weir (from Hydraulic Toolbox) for the peak flow generated from the entire internal and external MPD upstream catchment area for a 100-year ARI storm event with allowance for 3.8°C future temperature increase by 2110. The peak flow is noted to be ~1.6m3/s which the cumulative flow at XS-2 and XS-3 as per the <i>Overland Flow Path Assessment Memorandum</i>. NOTE: The → arrows show the indicative direction of overland flow and how it traverses from upstream catchment and discharge to Stream A. Please refer to the <i>Overland Flowpath Assessment</i> for more detailed depiction of overland flows.  The result from the analysis confirms that maximum product of Depth and Velocity is 0.082m²/s which is much lower than the maximum threshold of 0.3m²/s as stated in Table 3 of Road Drainage Version 1.2 of the ATDM.

		catchment area outside of Stage 2 boundary and confirms that surface water design of Road 25 meets the vehicle and pedestrian safety requirement as stated in Table 3 of <i>Road Drainage</i> (Version 1.2) of AT TDM. The B&A memo advises that Woods response confirms that the proposed stormwater pipes and any other parts of the proposed stormwater infrastructure in Stage 2 have been designed for flow originating from outside Stage 2 with respect to future land use assumptions as per the SWCOP. Therefore, in terms of relevant consent conditions, it is considered that Condition 1 Activity in Accordance with Application (Land Use Consent) and Condition 4 Stormwater Network (Stormwater Discharge Permit) are appropriate as they require the project to be developed in accordance with the reports and plans provided with the application and the piped stormwater network to be designed and constructed with the SWCOP.			Therefore, the proposed secondary flow path design for Road 25 complies with the relevant criteria for vehicular and pedestrian safety outlined in AT TDM and SWCoP and the longitudinal grade levels are considered appropriate.
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B – Matters arising from Nigel Mark-Brown review (2 September 2025)

1 Flood Assessment

Item	Healthy Waters Recommendation	Woods Response 22 August 2025	Additional Agenda Items (23/09/2025) – Highlighted Items	N. Mark-Brown comment and matters for conferencing	Woods Responses: - Agenda items from 23/09 N. Mark-Brown comment 24/09
1.1	The Applicant must provide a final copy of the hydraulic model prior to Engineering Plan Approval and prior to establishment of any impervious surfaces authorised by this consent.	Noted – however, the models have already been provided to Healthy Waters on 21/07/2025 and are not anticipated to change prior to Engineering Plan Approval submission. If necessary (e.g.: as a result of any significant	Final copy of the hydraulic model prior to Engineering Plan Approval is requested and prior to establishment of any impervious surfaces authorised by this consent. (Council note that the models show that providing attenuation has benefit which is contrary to the Applicant’s assessment). Is this matter	Consider that this can be satisfactorily addressed by proposed flood management conditions 80, 80B, 80C and 80D.	We agree with N. Mark-Brown’s statement. Council query regarding attenuation is discussed in Item 1.2 below.

		changes), revised models will be provided prior to EPA submission.	satisfactorily addressed by proposed flood management Conditions 80, 80B, 80C and 80D?		
1.2	The Applicant must provide the final proposed finished surface design that demonstrates no loss of storage volume within the Fitzgerald Stream 1% AEP floodplain.	While the proposed works will result in displacement of floodplain storage, this displacement does not generate any adverse effects within the Fitzgerald Stream 1% AEP floodplain. This was addressed in Stormwater Assessment Report, Drury Centre, Stage 2 Version 4. As such, while a final proposed finished surface design can be provided, it is not considered necessary that this demonstrate no loss of storage.	The Applicant must provide the final proposed finished surface design that demonstrates no loss of storage volume within the Fitzgerald Stream 1% AEP floodplain. Can this matter be addressed by proposed flood management conditions 80, 80B, 80C and 80D?	Council note that the models show that providing attenuation has benefit which is contrary to the Applicant's assessment. I expect that this matter may be able to be addressed by proposed flood management conditions 80, 80B, 80C and/or 80D, and possibly via new condition to address HW concerns.	We agree with N. Mark-Brown's statement in relation to this matter being dealt with proposed flood management conditions. Our flood management strategy for this development does not include attenuation. The assessments undertaken have already demonstrated that passing flows forward does not cause an increase in flood hazards. However, in relation to Council's query regarding benefits associated with attenuation, we have undertaken further analysis which is summarised below. We have taken 15 comparison points around Fitzgerald Stream and downstream around Drury Township as shown in figure below.  The water levels, flood depths and differences for the following 100-year scenarios inclusive of climate change are provided: - Pre-development - Post-dev with no attenuation - Post-dev with 2-year attenuation (Wetland 2-1) - Post-dev with 10-year attenuation (Wetland 2-1)

					Pre-development		Post-development with no attenuation			Post-development with 2-year attenuation				Post-development with 10-year attenuation				
					A	B	C	D	E	F	G	H	I	J	K	L	M	
					ID	Max Wl : Pre dev	Max Depth : Pre dev (m)	Max Wl : Post Dev with No attenuation	Max Depth : Post Dev with No attenuation (m)	Depth : Difference against Pre Dev (D-B) (m)	Max Wl : Post Dev with 2 YR attenuation	Max Depth : Post Dev with 2 YR attenuation (m)	Depth : Difference against Pre Dev (G-B) (m)	Depth : Difference against Post Dev with No attenuation (G-D) (m)	Max Wl : Post Dev with 10 YR attenuation	Max Depth : Post Dev with 10 YR attenuation (m)	Depth : Difference against Pre Dev (K-B) (m)	Depth : Difference against Post Dev with No attenuation (K-D) (m)
					1 (Fitzgerald Stream)	8.573	1.143	8.346	0.915	0.228	8.346	0.915	0.228	0.000	8.362	0.932	0.211	-0.017
					2 (Fitzgerald Stream)	8.661	2.299	8.377	1.870	0.429	8.374	1.866	0.433	0.004	8.398	1.890	0.409	-0.020
					3 (Fitzgerald Stream)	8.568	1.943	8.345	1.720	0.223	8.346	1.721	0.222	-0.001	8.361	1.736	0.207	-0.016
					4 (Fitzgerald Stream)	8.577	1.357	8.345	1.125	0.232	8.346	1.126	0.231	-0.001	8.361	1.141	0.216	-0.016
					5 (Hingaia Stream)	7.851	0.892	7.832	0.873	0.019	7.830	0.871	0.021	0.002	7.813	0.854	0.038	0.019
					6 (Hingaia Stream)	8.132	1.394	8.125	1.393	0.001	8.125	1.393	0.001	0.000	8.123	1.391	0.003	0.002
					7 (Hingaia Stream)	7.559	1.108	7.550	1.091	0.017	7.546	1.087	0.021	0.004	7.544	1.085	0.023	0.006
					8 (Hingaia Stream)	7.443	0.829	7.436	0.823	0.006	7.431	0.817	0.012	0.006	7.428	0.814	0.015	0.009
					9 (Hingaia Stream)	7.234	0.840	7.225	0.832	0.008	7.222	0.828	0.012	0.004	7.222	0.828	0.012	0.004
					10 (Hingaia Stream)	7.190	0.823	7.179	0.812	0.011	7.166	0.799	0.024	0.013	7.160	0.793	0.030	0.019
					11 (Hingaia Stream)	7.103	0.677	7.101	0.675	0.002	7.097	0.671	0.006	0.004	7.097	0.671	0.006	0.004
					12 (Hingaia Stream)	7.103	2.245	7.087	2.220	0.025	7.075	2.208	0.037	0.012	7.061	2.194	0.051	0.026
					13 (Hingaia Stream)	6.876	0.584	6.866	0.574	0.010	6.861	0.569	0.015	0.005	6.862	0.570	0.014	0.004
					14 (Hingaia Stream)	6.831	0.692	6.828	0.689	0.003	6.824	0.685	0.007	0.004	6.824	0.685	0.007	0.004
					15 (Hingaia Stream)	6.618	0.613	6.617	0.612	0.001	6.613	0.609	0.004	0.003	6.613	0.609	0.004	0.003
The results conclude the following: Fitzgerald Stream (Points 1-4): - When comparing post-development no attenuation against pre-development scenarios, benefits (decrease in flood depth) of up to 429mm are observed along Fitzgerald Stream. These benefits reduce by approximately 20mm when attenuation (10-year) is provided (i.e., benefit of 409mm). Along the Hingaia Stream (Points 10, 12-15): - When comparing post-development no attenuation against pre-development scenarios, decreases of up to 25mm are observed along the Hingaia Stream with these benefits increasing up to 37mm in the attenuation 2-year scenario and 51mm in the attenuation 10-year scenario. - These are adjacent to the stream corridor with the highest reductions noted at Point 12 which has an existing flood depth of 2.245m and therefore 37mm or 51mm decrease is considered unmeasurable in comparison. Along Drury Township (Points 5-9 and 11): - When comparing post-development no attenuation against pre-development scenarios, benefits/ decreases less than 10mm are observed in most locations with 20mm observed at Point 5 and 17mm at Point 7. - For the attenuation 2-year scenario, the results are largely similar to no attenuation. - For the attenuation 10-year scenario, decreases are generally less than 20mm with 38mm and 23mm reduction provided at Points 5 and 7. The results appear to be similar to the no attenuation scenario except for Point 5 where there is a difference of 19mm between attenuation and no attenuation. It is noted at Point 5, the existing flood depth is at 0.9m and therefore 19mm difference is considered unmeasurable in comparison. - In general, existing flood depths within Drury Township range from 0.7m to 1.39m. Therefore, it is concluded that whilst attenuation provides benefits downstream along the Hingaia Stream and Drury Township area, these benefits are also indicated in the no attenuation scenarios. It is also noted that the benefits associated with attenuation scenarios are unmeasurable in comparison to existing flood depths of Drury Township (i.e., from 0.7m up to 1.39m) and along the stream (i.e., up to 2.245m). Figures containing the water level difference plots are provided as Appendix A in this summary statement.																		
1.3	The Applicant must provide an <i>updated Overland Flow Path Assessment</i> to demonstrate that the overland flows can be managed to not create a flood hazard and risk to future public road users. It is not considered appropriate to defer resolution of remaining concerns in this regard to Engineering Plan Approval stage as any design changes	The Overland flow path assessment dated 14/07/2025 was submitted as part of the section 67 responses to Auckland Council. The assessment incorporated the primary stormwater network as per the proposed design. The blockage assumption applies to the primary network are consistent with the requirements set	The Applicant must provide an updated Overland Flow Path Assessment to demonstrate that the overland flows can be managed to not create a flood hazard and risk to future public road users The results of the Applicant’s overland flow assessments indicate no unacceptable hazard to public road users. Does HW accept this matter has been satisfactorily	The results of the overland flow assessments indicate no unacceptable hazard to public road users, apart from location at cross-sections XS2 and XS3 as described previously above.	We agree with N. Mark-Brown’s statement. A response regarding XS 2 and XS 3 has been provided in Item A above.													

	required to accommodate increased overland flows may trigger the need to vary the resource consent under Section 127 of the RMA	out in Section 4.3.5.6 of Auckland Council's Stormwater Code of Practice (SWCoP) (Version 4, July 2025). A 50% blockage was assumed for pipes DN > 600, and 100% blockage for pipes with DN ≤ 600. It is therefore unclear why these assumptions have been considered inappropriate for the purpose of the assessment, and no detail has been provided as to Healthy Waters concerns with the 14/07/2025 response. Despite this, further assessment was undertaken for Cross-sections 1, 8 and 9, assuming 100% blockage for all stormwater pipes (Noting this exceeds requirements of the stormwater code of practice). The results are summarised as follows XS1: The product of flow depth and average velocity is below the minimum threshold for both vehicular and pedestrian safety as outlined in the <i>Auckland Transport Traffic Design Manual</i> (AT TDM). The potential overland flow is fully contained within the	addressed?		
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		proposed road reserve. XS8 and XS9: The product of flow depth and average velocity does not exceed the threshold for people and vehicular safety (as there is no parking proposed at this location). Consistent with the previous assessment undertaken, the overland flow is not fully contained within the proposed road reserve (on the side of the reserve)), as this location is a low point where runoff discharges to the Stream and consistent with the design of the proposed road. As per the proposed design no overland flows originating from Stage 1 discharge towards Stage 2.			
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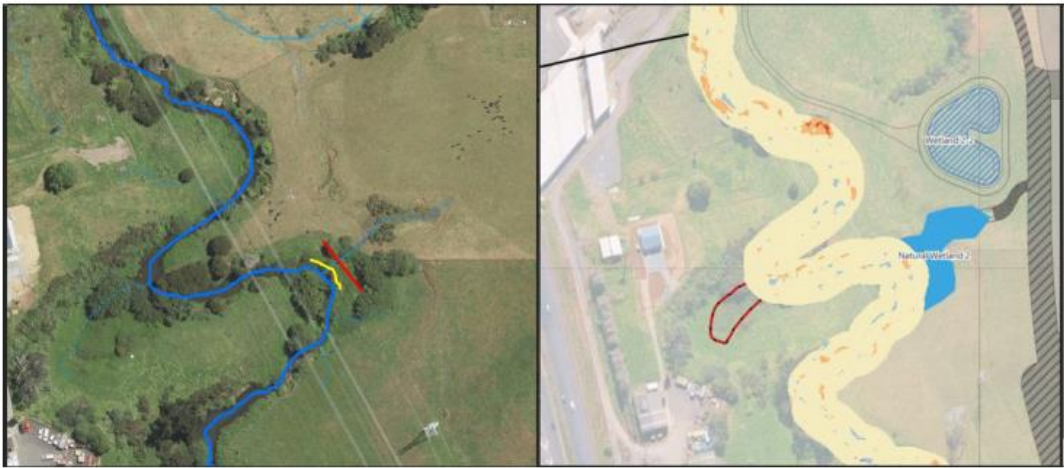
2 Flood and culvert upgrade issues Lot 40

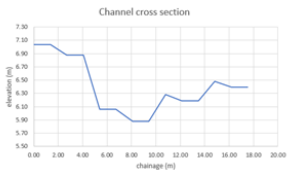
Item	Healthy Waters Recommendation	Woods Response	Additional Agenda Items (23/09/2025) – Highlighted Items	N. Mark-Brown comment and matters for conferencing	Woods Responses: • Agenda items from 23/09 • N. Mark-Brown comment 24/09
2.1	The Applicant must provide revised development layout for Lot 40 that provides a minimum of 20m of 'green space' offset from the Flanagan Road culvert to any buildings or infrastructure (including access roads or driveways. The Applicant must assess the risk of flooding to proposed buildings and infrastructure adjacent to Fitzgerald Stream from potential blockages of the Flanagan Road culvert.	The building footprint within Lot 40 is located approximately 11m away from the edge of the top of Fitzgerald Stream. The building in Lot 40 is proposed to be developed with a minimum freeboard of 500mm above the 1% AEP + climate change allowance, with the appropriate flood level determined by the culvert(s) operational at the time	The Applicant must provide revised development layout for Lot 40 that provides a minimum of 20m of 'green space' offset from the Flanagan Road culvert to any buildings or infrastructure (including access roads or driveways, and assess the risk of flooding to proposed buildings and infrastructure adjacent to Fitzgerald Stream	Flood management condition 80A appears sufficient to address flood risk to a future building on Lot 40.	We agree with N. Mark-Brown's statement.

		of occupation. The flood level at this location, and any potential impacts to Lot 40, are directly influenced by the functioning of the Flanagan Road Culvert and any supplementary culvert. A condition is proposed to this effect.	from potential blockages of Flanagan Road culvert. Is flood management condition 80A sufficient to address flood risk to a future building on Lot 40?		
2.2	A future supplementary culvert is essential to enable the ultimate development of the upstream contributing catchment. The proposed development of Lot 40 including Building H2 and ancillary hardstand areas presents a significant risk to the practicality of the Flanagan Road culvert upgrade due to the proximity of the proposed building and infrastructure being off set by less than 10 m from the top of stream bank. To enable adequate space for the upgrade HW recommends that the extent of proposed development within Lot 40 is amended so that a minimum of 20 m offset is provided from the top of bank of the stream to the edge of any building or infrastructure	Any supplementary culvert is noted to provide additional flood relief under the same blockage assumptions as applied to Flanagan Road, thereby reducing flooding on the site. With respect to the request for a revised development layout providing a minimum 20m green space offset from the Flanagan Road Culvert, we don't believe this is required as safe development of Lot 40 can still be achieved through elevation of buildings to maintain the required freeboard. In addition, safe egress from the site has been considered, with access provided outside of flood-affected areas. Accordingly, consideration should be given to the combination of appropriate building elevation, provision of freeboard, and consideration of egress to ensure that Lot 40 can be developed in a manner that achieves the required level of flood resilience and safety. As described in response above, potential blockage of the Flanagan Road culvert has been considered, we have concluded that the building within Lot 40 can be safely located above the relevant flooding level at the time and a condition is proposed to this effect. The flood risk assessment has been carried out assuming only the Flanagan Road culvert is blocked. However, the Fitzgerald Tributary has multiple culverts located upstream of Flanagan Road as can be seen in Figure 1 below.	A future supplementary culvert is essential to enable the ultimate development of the upstream contributing catchment. The proposed development of Lot 40 including Building H2 and ancillary hardstand areas presents a significant risk to the practicality of the Flanagan Road culvert upgrade due to the proximity of the proposed building and infrastructure being off-set by less than 10m from the top of stream bank. HW recommends that the extent of proposed development within Lot 40 is amended so that a minimum of 20m offset is provided from the top of bank of the stream to the edge of any building or infrastructure - Is the HW recommendation necessary that requires the extent of proposed development within Lot 40 is amended so that a minimum of 20m offset is provided from the top of bank of the stream to the edge of any building or infrastructure to enable adequate space for a future culvert upgrade? - Is the HW recommendation necessary or justified taking into account whether construction access for a culvert upgrade is necessary on the applicants side of the stream rather than the other side, together with the extent of land needed for civil engineering	HW recommends that the extent of proposed development within Lot 40 be amended so that a minimum of 20 m offset is provided from the top of bank of the stream to the edge of any building or infrastructure to enable adequate space for a future culvert upgrade. However, I consider that the condition may be unnecessarily onerous. The HW recommendation may not be necessary or justified, taking into account whether construction access for a culvert upgrade is necessary on the Applicant's side of the stream rather than the other side. In addition, I consider further information and discussion is required re the extent of land needed for civil engineering activities for the culvert upgrade and possible legal mechanisms that may be appropriate or necessary to allow future access onto Lot 40 to upgrade the culvert.	We agree with N. Mark-Brown's statement.

		Any blockage assessment should consider blockage of all structures, upstream and downstream. Any blockages upstream would result in flood storage being provided upstream of the structure, resulting in lower flood levels around Flanagan Road culvert. Irrespective, this is to be dealt with at detail design stage (Building Consent). For the purposes of the assessment undertaken, the building has been elevated with allowances for displacement as discussed above.	activities for the culvert upgrade and possible legal mechanisms that may be appropriate or necessary to allow future access onto Lot 40 to upgrade the culvert.		
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3 Erosion Assessment

Item	Healthy Waters Recommendation	Woods Response	Additional Agenda Items (23/09/2025) – Highlighted Items	N. Mark-Brown comment and matters for conferencing	Woods Responses:
3.1	The Applicant must provide an updated erosion assessment demonstrating that the proposed development will not increase the risk of erosion to existing Natural Wetland 2 and the Hingaia Stream (downstream of the discharge point associated with Wetland 2-2) and the overland flow path rock chute from Area 2. It is not considered appropriate to defer the update of the assessment to Engineering Plan Approval stage. Any design changes required to manage erosion may require a variation to the resource consent under Section 127 of the RMA. The Applicant must carry out a Geomorphic Risk Assessment of the Hingaia Stream, adjacent to the proposed development in order to understand long term erosion risk. The outputs of the Geomorphic Risk Assessment can be used to ensure that the proposed assets and structures adjacent to the stream are designed appropriately and will not be undermined by ongoing stream erosion.	A detailed stream erosion assessment has been undertaken for both the Hingaia Stream and Fitzgerald Stream at the locations specified. This assessment considered: - A geomorphological site visit at both Hingaia and Fitzgerald Stream, adjacent to the development area - Ongoing stream erosion processes - a Geomorphological Change Detection (GCD) analysis - An Erosion Screening Tool (EST) assessment - The risk of stream erosion to structures adjacent to the streams – both existing (Natural Wetland 2) and proposed (Wetland 2-2 and Road 2) - Any future stormwater outlets Hingaia Stream In relation to the Hingaia Stream, the results of this assessment confirm that the proposed development will not increase the risk of erosion to Hingaia Stream as well as to Natural Wetland 2. This is	The Applicant must provide an updated erosion assessment demonstrating that the proposed development will not increase the risk of erosion to existing Natural Wetland 2 and the Hingaia Stream (downstream of the discharge point associated with Wetland 2-2) and the overland flow path rock chute from Area 2. - Does HW accept the Applicant's assessment that the proposed development will not increase risk of erosion to Hingaia Stream - Does HW agree that stream protection adjacent to Wetland 2-2 can be undertaken per detailed design stage as part of EPA? - Does HW agree that the design of the rock chute can be part of detailed design through the EPA? - Does HW agree any future erosion protection of Road 2,	Council also refers to the conclusion regarding Natural Wetland 2. An Erosion Screening Tool (EST) analysis (indicated by the red line) is recommended on the Natural Wetland 2 channel to better understand the pre- and post-development impacts. Although the development area is relatively small compared to the entire catchment (0.44%), the local impact at the connection point (indicated by the yellow line) should not be overlooked. Erosion control measures should be considered at this location. I consider that erosion protection measures will be installed in accordance with Condition 75 (LU). I accept the assessment that the proposed development will not increase the risk of erosion to Hingaia Stream. I accept that stream	Woods Responses: - Agenda items from 23/09 N. Mark-Brown comment 24/09 Additional EST analysis undertaken for Natural Wetland 2 as requested by Council and N. Mark-Brown A high-level EST analysis has been carried out for an additional cross-section at the location of outlet of Natural Wetland 2 as requested at the location below.  The analysis considers two scenarios: - Post development – This scenario allows for the proposed design catchment extent (~4.79ha) and impervious coverage (~90% impervious) - Pre-development – This scenario allows for the existing upstream catchment area (~1.22ha) and impervious coverage (0.36% impervious), noted to be consistent with Auckland Council GeoMaps. The analysis has been undertaken for 2-, 10-, and 100-year ARI storm event with allowance for 3.8°C future temperature increase by 2110. All other parameters and assumptions regarding the analysis can be found in 'Stream Erosion Risk Assessment', prepared by Woods, dated 21/08/25. The EST analysis results have been provided below.

		attributed to the size of the proposed development (~ 24 ha or 0.44%) extent being minimal as compared to the overall Hingaia Stream catchment (~5493 ha). Additionally, based on the hydrograph information, the flows from the site discharge downstream to the Manukau Harbour before flows from the rest of catchment reach this portion of the Hingaia Stream therefore reducing the potential for erosion when peak flows are conveyed adjacent to the site. The assessment also concludes that the risk of erosion to proposed Wetland 2-2 is low as it located outside the floodplain and located above Natural Wetland 2. However, the GCD assessment has identified an erosion hot spot within the Hingaia Stream, adjacent to Wetland 2-2. Whilst the EST analysis we have undertaken demonstrates that there is no exacerbation of erosion potential to this area as a result of Drury Centre Stage 2, the stream may require further protection at this location to ensure future resilience of Wetland 2-2. The design of this is to be undertaken at detail design stage as part of EPA. Rock chute This was originally consented as part of a different consent. Modifications have been made with respect amendments to ensure maintenance and the rock chute/ green outfall. Overall the design of the rock chute, as previously consented, allows for 100-year flows (+climate change) and velocities and is to be further detailed accordingly as part of detail design (EPA stage). Road 2 Road 2 and its location was previously consented to as part of a separate project. This has been noted on the plans but	should not be responsibility of developer of Stage 2? Council also refer to the conclusion regarding Natural Wetland 2. An Erosion Screening Tool (EST) analysis (indicated by the red line) is recommended on the Natural Wetland 2 channel to better understand the pre- and post-development impacts. Although the development area is relatively small compared to the entire catchment (0.44%), the local impact at the connection point (indicated by the yellow line) should not be overlooked. Erosion control measures should be considered at this location.	protection adjacent to Wetland 2-2 can be undertaken per detailed design stage as part of EPA.	<table><tr><th rowspan="2"></th><th colspan="3">Scenario 2 ED+CC</th><th colspan="3">Scenario 4 PD+CC</th><th colspan="3">Change</th></tr><tr><th colspan="3">excess shear exceedance (%)</th><th colspan="3">excess shear exceedance (%)</th><th colspan="3"></th></tr><tr><th></th><th>2-YEAR 3.8°C</th><th>10-YEAR 3.8°C</th><th>100-YEAR 3.8°C</th><th>2-YEAR 3.8°C</th><th>10-YEAR 3.8°C</th><th>100-YEAR 3.8°C</th><th>2-YEAR 3.8°C</th><th>10-YEAR 3.8°C</th><th>100-YEAR 3.8°C</th></tr><tr><td><1 (min)</td><td>97%</td><td>88%</td><td>75%</td><td>57%</td><td>24%</td><td>6%</td><td>-40%</td><td>-63%</td><td>-69%</td></tr><tr><td>>1 & <2 (min)</td><td>3%</td><td>9%</td><td>18%</td><td>31%</td><td>50%</td><td>44%</td><td>28%</td><td>41%</td><td>26%</td></tr><tr><td>>2 & <10 (min)</td><td>1%</td><td>3%</td><td>7%</td><td>13%</td><td>26%</td><td>51%</td><td>12%</td><td>22%</td><td>44%</td></tr><tr><td>>10 (min)</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td></tr></table>  The results from the analysis confirm that: - In the existing scenario, the Natural Wetland outlet is generally not susceptible to erosion as the exceedances over a 24-hour duration for respective storm events fall within the ‘no erosion’ threshold. - The erosion potential is noted to increase in the post-development scenario, as the exceedances generally fall within ‘some erosion’ or ‘active erosion’ threshold. This is expected as the development proposes increase in impervious catchment area coverage discharging to this location. It is further noted that analysis does not account for ‘at-source’ and communal mitigation measures (such as tanks, wetlands, rock chute) proposed as part of the development, which will reduce the erosion potential that may occur at this location. As part of the SH1 offramp project, a green outfall is proposed at the location of analysis. The initial outfall proposal was presented to mana whenua at an on-site hui on 14 June 2023. Guidance from mana whenua at that time informed the design as presented for consent (BUN60423831) and required the piped outlet to be pulled back from the stream and the installation of a rock lined “Green Outfall” with pocket planting. In addition to the “Rock Chute” outfall, the approved BUN60423831 design included a treatment swale (no detention) and four large berm raingardens along Road 2. Through the development of this design for eventual Engineering Plan Approval, Woods have exchanged the treatment swale and raingardens for an end of pipe constructed wetland, providing a better stormwater outcome, whilst also servicing a portion of the Stage 2 Fast Track catchment – offering a centralised approach to stormwater management and removing devices from the roadside berm of the future SH1 offramp. Acknowledging the earlier engagement and wishes of mana whenua, the “green outfall” has been retained in a slightly modified fashion – offering energy dissipation and final polishing of stormwater flows at the outlet of Wetland 2/2, prior to discharge to Hingaia Stream. This design is currently before Council and Auckland Transport for Engineering Plan Approval – ENG60455176. The design will be undertaken in line with the requirements of TR018 (from Auckland Council), HEC-14 (Hydraulic Engineering Circular No. 14 – Hydraulic Design of Energy Dissipators for Culverts and Channels, US Department of Transportation Federal Highway Administration), and the guiding principles as have been discussed with Mana Whenua. Based on the above, it is concluded that the proposed development provides appropriate erosion control at the location raised by Council and N. Mark-Brown. We agree with N. Mark-Brown’s statement.		Scenario 2 ED+CC			Scenario 4 PD+CC			Change			excess shear exceedance (%)			excess shear exceedance (%)							2-YEAR 3.8°C	10-YEAR 3.8°C	100-YEAR 3.8°C	2-YEAR 3.8°C	10-YEAR 3.8°C	100-YEAR 3.8°C	2-YEAR 3.8°C	10-YEAR 3.8°C	100-YEAR 3.8°C	<1 (min)	97%	88%	75%	57%	24%	6%	-40%	-63%	-69%	>1 & <2 (min)	3%	9%	18%	31%	50%	44%	28%	41%	26%	>2 & <10 (min)	1%	3%	7%	13%	26%	51%	12%	22%	44%	>10 (min)	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Scenario 2 ED+CC			Scenario 4 PD+CC			Change																																																																			
	excess shear exceedance (%)			excess shear exceedance (%)																																																																						
	2-YEAR 3.8°C	10-YEAR 3.8°C	100-YEAR 3.8°C	2-YEAR 3.8°C	10-YEAR 3.8°C	100-YEAR 3.8°C	2-YEAR 3.8°C	10-YEAR 3.8°C	100-YEAR 3.8°C																																																																	
<1 (min)	97%	88%	75%	57%	24%	6%	-40%	-63%	-69%																																																																	
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>10 (min)	0%	0%	0%	0%	0%	0%	0%	0%	0%																																																																	
3.2	The Applicant must provide an erosion assessment of the Fitzgerald Stream to understand the potential migration of the stream overtime and demonstrate this will not undermine the proposed structures adjacent to the stream.	The Applicant must provide an erosion assessment of the Fitzgerald Stream to understand the potential migration of the stream overtime and demonstrate this will not undermine the proposed structures adjacent to the stream. - Does HW agree with the Applicant’s response on this matter? - Does HW accept that these matters have been satisfactorily addressed by the Applicant and proposed Condition 80E is appropriate?	I agree that the design of the rock chute can be part of detailed design through the EPA. In my view, any future erosion protection of Road 2 should not be the responsibility of developer of Stage 2.																																																																							

		Road 2 was shown for completeness and to show how the development ties into this road. The questions relating to road 2 are therefore outside of the scope of this consent. Fitzgerald Stream The assessment undertaken for the reach of Fitzgerald Stream (located adjacent to the development) concludes that it is generally stable with no erosion hotspots located within the area adjacent to the development. Therefore, any risk to structures is considered low and can be adequately managed through detailed design. Conclusion The assessment demonstrates that appropriate erosion management outcomes can be achieved at the Engineering Plan Approval stage. Any further refinement of design details will be undertaken within the framework established by this assessment.		I accept the Applicant's view on this matter. I agree with the Applicant's conclusion.	We agree with N. Mark-Brown's statement. We agree with N. Mark-Brown's statement. We agree with N. Mark-Brown's statement.
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4 Stormwater Management Devices

Item	Healthy Waters Recommendation	Woods Response	Additional Agenda Items (23/09/2025) – Highlighted Items	N. Mark-Brown comment and matters for conferencing	Woods Responses: - Agenda items from 23/09 N. Mark-Brown comment 24/09
4.1	The Applicant must either propose to vest Wetland 2-1 and Wetland 2-2 as public assets or confirm acceptance that any stormwater network upstream of the Stormwater Management Wetlands cannot be vested as public. If the Applicant prefers that the assets are vested as public, updated scheme plans must be provided indicating the Stormwater Management Wetlands (including maintenance access tracks) are located within ' <i>Land in Lieu of Reserve – for Drainage Purposes</i> '.	Both Wetland 2-1 and Wetland 2-2 are proposed to remain in private ownership. In accordance with this approach, the stormwater network upstream of the devices discharging to these two stormwater management wetlands can also be made private, if required by Healthy Waters. The plans can be updated to reflect this. As such, there is no requirement to vest Wetland 2-1 or Wetland 2-2 as public assets, and no updates	The Applicant must either propose to vest Wetland 2-1 and Wetland 2-2 as public assets or confirm acceptance that any stormwater network upstream of the Stormwater Management Wetlands cannot be vested as public Can HW confirm that it will require the network discharging to Wetlands 2-1 and 2-2 to be private? If	It is unclear whether HW will require the network discharging to Wetlands 2-1 and 2-2 to be private. If so, the Applicant will need to confirm that the plans will be updated.	The plans can be updated following Healthy Waters confirmation.

		to the scheme plans are necessary in this regard.	so, can the Applicant confirm that the plans will be updated?		
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Stage 1 – Superlot Stormwater Management

Item	Healthy Waters Recommendation	Woods Response	Additional Agenda Items (23/09/2025) – Highlighted Items	N. Mark-Brown comment and matters for conferencing	Woods Responses: - Agenda items from 23/09 N. Mark-Brown comment 24/09
	Conditions requiring that hydrology mitigation and water quality treatment are provided at-source on all individual private lots have been recommended within Appendix B. These requirements are to be secured via consent notices registered on the relevant titles.	Noted, this recommendation is addressed in the B&A response.	N/A	This is included in draft conditions as a new un-numbered condition after Condition 156. No discussion needed.	Not proposed to be covered by the Agenda – no discussion required.

Stormwater conditions with remaining differences

Item no.	Healthy Waters comment	Applicant response per Appendix 9 August 2025	Additional Agenda Items (23/09/2025) – Highlighted Items	N. Mark-Brown comment and matters for conferencing	Woods Responses: - Agenda items from 23/09 N. Mark-Brown comment 24/09
32.	HW Note: Conditions 43, 49, 61, 68, 75, 82, 88, 99, 102, 108, 114, 125, 136, 156 are not supported if the proposed wetlands are to remain private assets.	Kiwi Property generally accepts the position from Healthy Waters however a condition is added to retain flexibility should the upstream stormwater network be accepted by Healthy Waters for vesting. Refer to new condition under heading “Stormwater Asset Acceptance” in the SUB conditions set for Stage 2.	Refer to condition differences (at pages 7 – 12 of Annexure 1) and advise of position.	I agree that proposed new Condition 38A (SUB) addresses this.	We consider this has been addressed by Condition 38A (SUB).

34.	<i>X. Maintenance of Communal Stormwater Management Devices</i> <i>The consent holder must maintain the communal stormwater management devices serving the subdivision in accordance with the following requirements:</i> <i>(a) The consent holder must maintain the communal devices until the earlier of:</i> <i>(i.) 80% of the building sites discharging to the devices have been developed, or</i> <i>(ii.) A period of five (5) years has passed from the date of issue of the final section 224(c) certificate under the Resource Management Act 1991 for the subdivision,</i> <i>(b) The consent holder must remove any sediment from the communal device that has resulted from development activities within the subdivision, if required by the Council, prior to acceptance of the device(s) by Council for ongoing maintenance.</i> <i>(c) At the time of transfer of any stormwater management devices to Council for ongoing maintenance, all planted areas associated with the stormwater management devices must achieve a minimum plant survival rate of 95%.</i> <i>(d) Updated Operation and Maintenance Manuals for all communal stormwater management devices must be provided to the Council at the time of transfer of any stormwater management devices to Council for ongoing maintenance.</i> <i>(e) A bond must be provided at the time of application for the section 224(c) certificate to ensure the ongoing maintenance of the communal stormwater management devices until transfer of any stormwater</i>	Kiwi Property notes that the maintenance is already addressed by Conditions 18-20 of the DIS consent and therefore this condition is not accepted on the basis it is unnecessary.	N/A	The proposed new condition proposed by HW includes a number of requirements which are not included in Conditions 18-20 of the DIS consent. It is not clear that the additional condition is necessary. I recommend one condition including the additional HW requirements.	We maintain our position this condition is unnecessary. We also note that Conditions 14 and 15 will address the Operation and Maintenance of stormwater management devices to be vested with Auckland Council. Any additional conditions to be discussed at conferencing.
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	<i>management devices to Council for ongoing maintenance.</i>				
35.	<i>Requirement for Bond</i> <i>Prior to the issue of the section 224(c) certificate under the RMA, the consent holder must provide a bond to the Council in accordance with Section 222 of the RMA to ensure the performance of the proposed stormwater management devices.</i> <i>The bond must:</i> <i>(a) Be calculated at a rate of communal device area;</i> <i>(b) Be provided in the form of a cash deposit, a bank bond guaranteed by a New Zealand-registered bank, or another form of security (e.g., an encumbrance) as agreed with the Council.</i> <i>(c) Be documented and executed by the Council's solicitor. All legal and administrative costs associated with preparation, execution, variation, administration, or release of the bond must be met by the consent holder.</i> <i>(d) Be released once the relevant condition(s) have been satisfied and all associated Council costs have been paid.</i>	Kiwi Property does not support the requirement for bond. There are detailed set of conditions regarding operation of the device (e.g.: conditions 14 – 16 of the Stormwater Discharge Permit) and maintenance (e.g.: conditions 18 – 23 of the Permit). This issue should only arise in respect of assets that are intended to be vested in council. Otherwise, the appropriateness of a bond is considered to be something that can be discussed between the parties at the time of vesting.	N/A	I agree that ongoing operation and maintenance of stormwater devices can be enforced through consent conditions.	We agree with N. Mark-Brown's statement and we maintain our position that a requirement for a bond is unnecessary.
36.	<i>X. Exclusion of Retaining Walls from Vesting</i> <i>No retaining walls shall be vested in Auckland Council's Healthy Waters department. All retaining structures shall remain in private ownership and maintenance responsibility unless otherwise agreed in writing by Auckland Council (Healthy Waters).</i>	Kiwi Property does not support this condition. It notes that all retaining walls (where proposed) will remain in private ownership and therefore this condition is not required.	N/A	I agree that this condition is not required, given the private ownership of the retaining walls.	We agree with N. Mark-Brown's statement.

37.	<i>X. Flood Risk and Nuisance</i> <i>The consent holder must ensure that the development does not result in any increase in flood hazard risk or flood nuisance to upstream or downstream properties, measured against the existing rainfall and land use conditions for the 50% AEP, 10% AEP, and 1% AEP storm events.</i>	Kiwi Property generally accepts this condition however minor tweaks (shown in strikethrough) are suggested to the wording being flood hazard as opposed to risk or nuisance. 'Nuisance' is subjective and we have already demonstrated that there are no increase in flood hazard as a result of the development.	N/A	I agree that including 'nuisance' in Condition 80B is not necessary.	We agree with N. Mark-Brown's statement.
38.	<i>X. Stormwater Asset Acceptance</i> <i>Prior to the submission of any Engineering Plan Approval and prior to Auckland Council approving a survey plan pursuant to s223 of RMA for any stage, the consent holder must confirm and agree with Auckland Council Healthy Waters, acceptance in respect of all stormwater devices proposed to vest to Healthy Waters.</i> <i>Should any stormwater devices not been accepted by Healthy Waters for vesting, the relevant plan must be updated, and it must show was a separate allotment on the survey plan and must be owned by a common entity as outlined in the conditions.</i>	Kiwi Property generally accepts this condition but suggest minor tweaks shown as strikethrough as the stormwater devices will be owned by Kiwi Property in the event that Healthy Waters does not accept these devices for vesting.	N/A	I agree that new Condition 38A (SUB), as amended by the Applicant, is appropriate.	We agree with N. Mark-Brown's statement
39.	<i>X. Erosion Risk Assessment</i> <i>The consent holder must demonstrate, to the satisfaction of the Healthy Water's, Waterway's Planning Team Leader, that all permanent structures associated with the development including buildings, stormwater outfalls, retaining walls, and other infrastructure are not at risk of being undermined by erosion over their intended design life (50 to 100 years). This must be confirmed through a geotechnical and/or hydraulic assessment prepared by a suitably qualified and experienced professional, taking into account site-specific erosion potential, hydrological conditions, and the effects of climate change.</i>	Kiwi Property does not support this condition but notes that an erosion assessment has already been undertaken and identified hotspots adjacent Wetland 2-2. A condition of consent is therefore proposed to undertake an updated assessment for Wetland 2-2 at EPA stage to identify any erosion mitigation measures necessary to ensure the protection of the embankment of Wetland 2-2 from erosion. Refer to Condition 80E.	N/A	I agree that Condition 80E as proposed by the Applicant is appropriate	We agree with N. Mark-Brown's statement.
40.	<i>X. Downstream Flood Hazard Management</i> <i>Prior to the commencement of earthworks, the Consent Holder shall submit a finalised proposed surface design to Council for certification. The plan must demonstrate that there is no loss of flood storage within the Fitzgerald Stream floodplain as a result of the proposed works.</i>	Kiwi Property supports this condition in part as per the amendments shown as strikethrough. As assessed by Kiwi Property's stormwater specialist, the proposed works will result in displacement of floodplain storage but this displacement does not generate any adverse effects within the Fitzgerald Stream 1% AEP floodplain. As such, it is not considered necessary that the finalised proposed surface design demonstrate no loss of flood storage	N/A	As addressed previously above under Flood Management, I consider that proposed Conditions 80, 80B, 80C and 80D together with a new condition to address HW concern may be suitable to address this issue.	We agree with N. Mark-Brown's statement, however any new conditions to be discussed at Conferencing.

41.	<i>X. Hydraulic Model Verification</i> <i>Prior to the lodgement of Engineering Plan Approval (EPA) and before any impervious areas are established on the site, the Consent Holder shall submit the final hydraulic model to the Council for review and verification.</i>	Kiwi Property accepts this condition but amended to tie it back to requirements of Condition 80B relating to flood hazard of upstream or downstream properties.	N/A	As above (support Applicant's approach).	We agree with N. Mark-Brown's statement
42.	<i>X. Large Format Retail – SMAF-1 Retention</i> <i>The Consent Holder shall ensure that hydrology mitigation of runoff from roof areas of large-format retail buildings is achieved in accordance with the approved stormwater management plan and SMAF-1 requirements, specifically in relation to retention volumes. Where retention is proposed to be achieved via reuse of roof runoff, the following must be maintained in perpetuity:</i> <i>(a) A functional and appropriately sized reuse system capable of drawing down the required retention volume between storm events;</i> <i>(b) Ongoing operational demand sufficient to ensure regular draw-down of retained water; and</i> <i>(c) Maintenance of reuse infrastructure in accordance with the manufacturer's specifications.</i> <i>If reuse demand proves insufficient to achieve the required retention volumes, the Consent Holder shall implement alternative mitigation measures to achieve compliance with SMAF-1 retention requirements to the satisfaction of the Council. This condition shall be secured via a consent notice registered on the title(s) of all relevant lots</i>	Kiwi Property does not support this condition requiring a consent notice on the Large Format Retail Lots. This is to be done at detail design stage when further information is available pertaining the design of the LFR tenancies. Any retention volume that cannot be drawn down within 72 hours is to be offset to detention volume either at-source or at the communal wetland.	N/A	The intent of the condition is unclear, and HW should clarify whether its purpose is to ensure that if retention is to be adopted as part of the BPO there is a mechanism to enforce its implementation in the future? If so, I recommend that the proposed condition be modified to address the Applicant's concern (e.g., by deleting the words "specifically in relation to retention volumes").	We don't agree with this condition or the consent notice being proposed. Condition 8B of the DIS requires a SIMP to be prepared and a description of the hydrological mitigation devices to be provided.

Appendix A

Water level difference plots



REVISION DETAILS		INT	DATE	SURVEYED	
1.0	For Information	-	29/08/2025	DESIGNED	-
-	-	-	-	DRAWN	JO
-	-	-	-	CHECKED	RN
-	-	-	-	APPROVED	-

8 NUGENT STREET,
GRAFTON,
AUCKLAND 1023



P24-447 - Drury Centre - Stage 2 Fast Track
Water Level Difference
Pre dev vs Post dev 100yr 2.1C

	STATUS	ISSUED FOR INFORMATION	REV
	SCALE	NTS	1.0
	COUNCIL	AUCKLAND COUNCIL	
	SHEET	P24-447-SKT-0001	



REVISION DETAILS					8 NUGENT STREET, GRAFTON, AUCKLAND 1023				
1.0	For Information	-	29/08/2025	DESIGNED			STATUS	ISSUED FOR INFORMATION	REV
-	-	-	-	DRAWN			SCALE	NTS	1.0
-	-	-	-	CHECKED			COUNCIL	AUCKLAND COUNCIL	
-	-	-	-	APPROVED			SHEET	P24-447-SKT-0002	

P24-447 - Drury Centre - Stage 2 Fast Track
Water Level Difference
Pre dev vs Post dev with 2Yr attenuation 100yr 2.1C





REVISION DETAILS					8 NUGENT STREET, GRAFTON, AUCKLAND 1023				
1.0	For Information	-	29/08/2025	DESIGNED			STATUS	ISSUED FOR INFORMATION	REV
-	-	-	-	DRAWN			SCALE	NTS	1.0
-	-	-	-	CHECKED			COUNCIL	AUCKLAND COUNCIL	
-	-	-	-	APPROVED			SHEET	P24-447-SKT-0003	

P24-447 - Drury Centre - Stage 2 Fast Track
Water Level Difference
Pre dev vs Post dev with 10Yr attenuation 100yr 2.1C





REVISION DETAILS		INT	DATE	SURVEYED	
1.0	For Information	-	29/08/2025	DESIGNED	-
-	-	-	-	DRAWN	JO
-	-	-	-	CHECKED	RN
-	-	-	-	APPROVED	-

8 NUGENT STREET,
GRAFTON,
AUCKLAND 1023



P24-447 - Drury Centre - Stage 2 Fast Track
Water Level Difference
Post dev vs Post dev with 2Yr attenuation 100yr 2.1C



STATUS	ISSUED FOR INFORMATION	REV
SCALE	NTS	1.0
COUNCIL	AUCKLAND COUNCIL	
SHEET	P24-447-SKT-0004	



REVISION DETAILS		INT	DATE	SURVEYED			P24-447 - Drury Centre - Stage 2 Fast Track Water Level Difference Post dev vs Post dev with 10Yr attenuation 100yr 2.1C		STATUS	ISSUED FOR INFORMATION	REV	
1.0	For Information	-	29/08/2025	DESIGNED	-				8 NUGENT STREET, GRAFTON, AUCKLAND 1023	SCALE	NTS	1.0
-	-	-	-	DRAWN	JO					COUNCIL	AUCKLAND COUNCIL	
-	-	-	-	CHECKED	RN							
				APPROVED	-				WOODS.CO.NZ	SHEET	P24-447-SKT-0005	

Item no.	Healthy Waters comment	Applicant response per Appendix 9 August 2025	N. Mark-Brown comment and matters for conferencing
32.	HW Note: Conditions 43, 49, 61, 68, 75, 82, 88, 99, 102, 108, 114, 125, 136, 156 are not supported if the proposed wetlands are to remain private assets.	Kiwi Property generally accepts the position from Healthy Waters however a condition is added to retain flexibility should the upstream stormwater network be accepted by Healthy Waters for vesting. Refer to new condition under heading "Stormwater Asset Acceptance" in the SUB conditions set for Stage 2.	I agree that proposed new Condition 38A (SUB) addresses this.
34.	<i>X. Maintenance of Communal Stormwater Management Devices</i> <i>The consent holder must maintain the communal stormwater management devices serving the subdivision in accordance with the following requirements:</i> <i>(a) The consent holder must maintain the communal devices until the earlier of:</i> <i>(i) 80% of the building sites discharging to the devices have been developed, or</i> <i>(ii.) A period of five (5) years has passed from the date of issue of the final section 224(c) certificate under the Resource Management Act 1991 for the subdivision,</i> <i>(b) The consent holder must remove any sediment from the communal device that has resulted from development activities within the subdivision, if required by the Council, prior to acceptance of the device(s) by Council for ongoing maintenance.</i> <i>(c) At the time of transfer of any stormwater management devices to Council for ongoing maintenance, all planted areas</i>	Kiwi Property notes that the maintenance is already addressed by Conditions 18-20 of the DIS consent and therefore this condition is not accepted on the basis it is unnecessary.	The proposed new condition proposed by HW includes a number of requirements which are not included in Conditions 18-20 of the DIS consent. It is not clear that the additional condition is necessary. I recommend one condition including the additional HW requirements.

	<i>associated with the stormwater management devices must achieve a minimum plant survival rate of 95%.</i> <i>(d) Updated Operation and Maintenance Manuals for all communal stormwater management devices must be provided to the Council at the time of transfer of any stormwater management devices to Council for ongoing maintenance.</i> <i>(e) A bond must be provided at the time of application for the section 224(c) certificate to ensure the ongoing maintenance of the communal stormwater management devices until transfer of any stormwater management devices to Council for ongoing maintenance.</i>		
35.	<i>Requirement for Bond</i> <i>Prior to the issue of the section 224(c) certificate under the RMA, the consent holder must provide a bond to the Council in accordance with Section 222 of the RMA to ensure the performance of the proposed stormwater management devices.</i> <i>The bond must:</i> <i>(a) Be calculated at a rate of communal device area;</i> <i>(b) Be provided in the form of a cash deposit, a bank bond guaranteed by a New Zealand-registered bank, or another form of security (e.g., an encumbrance) as agreed with the Council.</i> <i>(c) Be documented and executed by the Council's solicitor. All legal and administrative costs associated with preparation, execution, variation, administration, or release of the bond must be met by the consent holder.</i> <i>(d) Be released once the relevant condition(s) have been satisfied and all associated Council costs have been paid.</i>	Kiwi Property does not support the requirement for bond. There are detailed set of conditions regarding operation of the device (e.g.: conditions 14 – 16 of the Stormwater Discharge Permit) and maintenance (e.g.: conditions 18 – 23 of the Permit). This issue should only arise in respect of assets that are intended to be vested in council. Otherwise, the appropriateness of a bond is considered to be something that can be discussed between the parties at the time of vesting.	I agree that ongoing operation and maintenance of stormwater devices can be enforced through consent conditions.

Attachment B to JWS – Stormwater 2 October 2025.

36.	<i>X. Exclusion of Retaining Walls from Vesting</i> <i>No retaining walls shall be vested in Auckland Council's Healthy Waters department. All retaining structures shall remain in private ownership and maintenance responsibility unless otherwise agreed in writing by Auckland Council (Healthy Waters).</i>	Kiwi Property does not support this condition. It notes that all retaining walls (where proposed) will remain in private ownership and therefore this condition is not required.	I agree that this condition is not required, given the private ownership of the retaining walls.
37.	<i>X. Flood Risk and Nuisance</i> <i>The consent holder must ensure that the development does not result in any increase in flood hazard risk or flood nuisance to upstream or downstream properties, measured against the existing rainfall and land use conditions for the 50% AEP, 10% AEP, and 1% AEP storm events.</i>	Kiwi Property generally accepts this condition however minor tweaks (shown in striketrough) are suggested to the wording being flood hazard as opposed to risk or nuisance. 'Nuisance' is subjective and we have already demonstrated that there are no increase in flood hazard as a result of the development.	I agree that including 'nuisance' in Condition 80B is not necessary.
38.	<i>X. Stormwater Asset Acceptance</i> <i>Prior to the submission of any Engineering Plan Approval and prior to Auckland Council approving a survey plan pursuant to s223 of RMA for any stage, the consent holder must confirm and agree with Auckland Council Healthy Waters, acceptance in respect of all stormwater devices proposed to vest to Healthy Waters.</i> <i>Should any stormwater devices not been accepted by Healthy Waters for vesting, the relevant plan must be updated, and it must show was a separate allotment on the survey plan and must be owned by a common entity as outlined in the conditions.</i>	Kiwi Property generally accepts this condition but suggest minor tweaks shown as striketrough as the stormwater devices will be owned by Kiwi Property in the event that Healthy Waters does not accept these devices for vesting.	I agree that new Condition 38A (SUB), as amended by the Applicant, is appropriate.

39.	<i>X. Erosion Risk Assessment</i> <i>The consent holder must demonstrate, to the satisfaction of the Healthy Water's, Waterway's Planning Team Leader, that all permanent structures associated with the development including buildings, stormwater outfalls, retaining walls, and other infrastructure are not at risk of being undermined by erosion over their intended design life (50 to 100 years). This must be confirmed through a geotechnical and/or hydraulic assessment prepared by a suitably qualified and experienced professional, taking into account site-specific erosion potential, hydrological conditions, and the effects of climate change.</i>	Kiwi Property does not support this condition but notes that an erosion assessment has already been undertaken and identified hotspots adjacent Wetland 2-2. A condition of consent is therefore proposed to undertake an updated assessment for Wetland 2-2 at EPA stage to identify any erosion mitigation measures necessary to ensure the protection of the embankment of Wetland 2-2 from erosion. Refer to Condition 80E.	I agree that Condition 80E as proposed by the Applicant is appropriate.
40.	<i>X. Downstream Flood Hazard Management</i> <i>Prior to the commencement of earthworks, the Consent Holder shall submit a finalised proposed surface design to Council for certification. The plan must demonstrate that there is no loss of flood storage within the Fitzgerald Stream floodplain as a result of the proposed works.</i>	Kiwi Property supports this condition in part as per the amendments shown as striethrough. As assessed by Kiwi Property's stormwater specialist, the proposed works will result in displacement of floodplain storage but this displacement does not generate any adverse effects within the Fitzgerald Stream 1% AEP floodplain. As such, it is not considered necessary that the finalised proposed surface design demonstrate no loss of flood storage.	As addressed previously above under Flood Management, I consider that proposed Conditions 80, 80B, 80C and 80D together with a new condition to address HW concern may be suitable to address this issue.
41.	<i>X. Hydraulic Model Verification</i> <i>Prior to the lodgement of Engineering Plan Approval (EPA) and before any impervious areas are established on the site, the Consent Holder shall submit the final hydraulic model to the Council for review and verification.</i>	Kiwi Property accepts this condition but amended to tie it back to requirements of Condition 80B relating to flood hazard of upstream or downstream properties.	As above (support Applicant's approach).

42.	<i>X. Large Format Retail – SMAF-1 Retention</i> <i>The Consent Holder shall ensure that hydrology mitigation of runoff from roof areas of large-format retail buildings is achieved in accordance with the approved stormwater management plan and SMAF-1 requirements, specifically in relation to retention volumes. Where retention is proposed to be achieved via reuse of roof runoff, the following must be maintained in perpetuity:</i> <i>(a) A functional and appropriately sized reuse system capable of drawing down the required retention volume between storm events;</i> <i>(b) Ongoing operational demand sufficient to ensure regular draw-down of retained water; and</i> <i>(c) Maintenance of reuse infrastructure in accordance with the manufacturer's specifications.</i> <i>If reuse demand proves insufficient to achieve the required retention volumes, the Consent Holder shall implement alternative mitigation measures to achieve compliance with SMAF-1 retention requirements to the satisfaction of the Council. This condition shall be secured via a consent notice registered on the title(s) of all relevant lots.</i>	Kiwi Property does not support this condition requiring a consent notice on the Large Format Retail Lots. This is to be done at detail design stage when further information is available pertaining the design of the LFR tenancies. Any retention volume that cannot be drawn down within 72 hours is to be offset to detention volume either at-source or at the communal wetland.	The intent of the condition is unclear, and HW should clarify whether its purpose is to ensure that if retention is to be adopted as part of the BPO there is a mechanism to enforce its implementation in the future? If so, I recommend that the proposed condition be modified to address the Applicant's concern (e.g., by deleting the words "<i>specifically in relation to retention volumes</i>").
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