

Memorandum



To: Panel for FTAA1019 Drury Metropolitan Centre Consolidated Stage 1 and Stage 2
From: Nigel Mark-Brown
Date: 14 October 2025
Subject: Technical advice on stormwater

This memo summarises the results of my technical advice on stormwater for this proposal based on my review of relevant documents in the application, attendance at expert conference sessions on 2 and 9 October 2025 and review of proposed consent conditions. My opinion is that the issues raised by Healthy Waters and Auckland Council have essentially been resolved. This is demonstrated in the attached table which summarises the issues that were in contention, the results of expert conferencing and reference to associated proposed additional or revised consent conditions.

Regards

A handwritten signature in blue ink, appearing to read "Nigel Mark-Brown".

Nigel Mark-Brown

Environmental Context Ltd

Drury Metropolitan Centre - Fast-Track Stormwater matters – Issues summary

Summary statement prepared by N.Mark-Brown (14/10/25)

Issue	Further information provided by Applicant	Results of expert conferencing 2 & 9 October and consequent actions/ comments
S67 Request per question for Applicant from NMB 2 September 2025 on extent of catchment served by proposed stormwater pipes and treatment devices		<i>Note: unless noted otherwise agreement refers to between all attending stormwater experts and condition numbers refer to the land use consent per proposed consent conditions as modified by Kiwi Properties 13 October 2025</i>
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?	Woods Response per Road 25 Culvert Design Memo 18 September 2025 & B&A s67 response memo 19 September 2025. Summary statement prepared by P. Wadan and B. Pathirage 30 September 2025	Agreed that the runoff from a contributing catchment outside the Stage 2 area, flowing in westerly direction towards Wetland 2-1 has been satisfactorily addressed with respect to stormwater management within the Stage 2 area and that flood hazards within the road corridor are safe for vehicles and pedestrians and that further detail can be provide at the EPA stage.

Flood Assessment

Healthy Waters recommendation prior to expert conferencing	Further information provided	Results of expert conferencing 2 & 9 October and consequent actions/ comments
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.		Agreed that this matter is addressed by proposed revised conditions 80 and 80B.
The Applicant must provide the final proposed finished surface design that demonstrates no loss of storage volume within the Fitzgerald Stream 1% AEP floodplain.		Agreed that this matter is addressed by proposed revised condition 80C.
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 required to accommodate increased overland flows may trigger	The overland flow path assessment for the intersection of Road 2 and Road 1 (Stage1) was completed under EPA reference ENG60429650. This demonstrated that the overland flow paths are directed south. An updated contour plan was provided by	Agreed that that the matter is resolved by way of a proposed new condition. Condition 80E addresses this matter. It was noted at expert conferencing that the current location of the proposed rock chute on Road 2 is different to that authorised by the NoR.

the need to vary the resource consent under Section 127 of the RMA	Woods at the 9 October expert conferencing and the Woods engineers advised that under the requirements of SWCoP there are no additional stormwater flows contributing from stage 1 to stage 2.	
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Flood and culvert upgrade issues Lot 40

Healthy Waters recommendation prior to expert conferencing		Results of expert conferencing 2 & 9 October and consequent actions / comments
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).		Agreed that this matter is satisfactorily addressed by new condition 80F.
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.		Agreed that this matter is satisfactorily addressed by revised condition 80A.

Erosion Assessment

Healthy Waters recommendation prior to expert conferencing	Further information provided	Results of expert conferencing 2 & 9 October and consequent actions / comments
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. 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	Summary statement prepared by P. Wadan and B. Pathirage 30 September 2025	Agreed that this matter is satisfactorily addressed by new conditions 80E and 80EA.

undermine the proposed structures adjacent to the stream.		
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Stormwater Management Devices

Healthy Waters recommendation prior to expert conferencing	Further information provided	Results of expert conferencing 2 & 9 October and consequent actions/ comments
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 'Land in Lieu of Reserve – for Drainage Purposes'.	Both Wetland 2-1 and Wetland 2-2 are proposed to remain in private ownership and no updates to the scheme plans are necessary in this regard. Wetland 2-1 has both public and private stormwater lines discharging to it. Wetland 2-2 has only public stormwater lines discharging to it. A combination of private and public stormwater pipes is proposed as shown in updated drawings P24-447-01-3001, 3002, 3003, 3004, 3102 and 3103 dated 7/10/25 provided by the Applicant.	It was agreed that public stormwater pipes could discharge to a private treatment device. It was also agreed that the discharge pipes <u>from</u> the private wetlands should be private. It is noted that the Woods drawings of 7/10/25 (Drawing P24-447-01-3003-DR) appear to show discharge pipes <u>from</u> the private wetlands to be public, not private as agreed at conferencing. This plan should be amended. Alternatively, a suggested condition is set out at the end of this memorandum. The Applicant's experts advised that NZTA have been approached to comment but no response had been received at the time of the 9 October JWS. It was agreed that it is acceptable that Lots 31, 33, 38, 40, 41, 42 and 43 will connect to the public stormwater pipes. Conditions have been updated to reflect this. These are as set out in Item 32 of Stormwater conditions discussed at expert conferencing below.
The Applicant must provide updated scheme plans that showing the public Communal Raingarden 2-1 (including maintenance access tracks) located within a 'Land in Lieu of Reserve – for Drainage Purposes'.	Applicant now proposes that the communal raingarden will be private so the scheme plan does not need to be updated. It has public stormwater pipes discharging to it.	It was agreed that public stormwater pipes could discharge to a private treatment device. It was also agreed that the discharge pipes <u>from</u> the private device should be private. It is noted that the drawings of 7/10/25 appear to show discharge pipe <u>from</u> the private rain garden to be public, not private as agreed at conferencing. A suggested new condition is provided at the end of this document. It was agreed that previously proposed conditions 38A and 38B are not now required and they have been deleted.

Stage 1 – Superlot Stormwater Management

Healthy Waters recommendation prior to expert conferencing	Results of expert conferencing 2 & 9 October and consequent actions/ comments
Conditions requiring that hydrology mitigation and water quality treatment are provided at-source on all individual private lots were recommended. These requirements are to be secured via consent notices registered on the relevant titles.	Agreed that this matter is satisfactorily addressed by new condition 7A (DIS)

Ecology

Auckland Council comments Wetland 1	Results of expert conferencing 2 & 9 October and consequent actions/ comments
There is also 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 ascribed this as ranging from a 'low', up to a 'moderate' magnitude of effect. The applicants' 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 if sufficient hydrology would remain to retain a wetland in this location permanently, or the duration throughout the year suitable hydrology would be retained. I consider then that this is an underreported effect and not to be adequately managed.	Agreed by the Council ecologist and Council senior stormwater specialist that no further assessment or conditions are required.

Stormwater conditions discussed at expert conferencing

Item no.	Healthy Waters recommendation prior to expert conferencing	Results of expert conferencing 2 & 9 October and consequent actions/ comments
32.	HW Note: Conditions 43, 49, 61, 68, 75, 82, 88, 99, 102, 108, 114, 125, 136, and 156 are not supported if the proposed wetlands are to remain private assets.	This requirement has been superseded by the previous discussion at expert conferencing on the revised drawings showing public and private stormwater lines. The result of this is that the subdivision consent conditions requiring connection to the public stormwater lines are conditions 43, 61, 68, 75, 82, 102 and 136, to be retained.

		Accordingly conditions 49, 88, 108 (deletion of Lot 35 only), 114 and 125 which refer to lots which will connect to private stormwater pipes have had the requirement to connect to the public stormwater line deleted in the revised conditions. The revised proposed conditions include condition 99 which appears to be remnant from when the raingarden in Lot 603 was to be public. Given the inclusion of Wetland 2-1 in condition 99, it is queried whether the condition should also incorporate the raingarden proposed within Lot 605, and whether the conditions should also address Wetland 2-2.
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 management devices to Council for ongoing maintenance.</i>	Agreed that this is no longer relevant as there are no public stormwater devices.

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>	Agreed that this is no longer relevant
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>	Agreed that this is no longer relevant
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 <u>hazard risk</u> 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>	Agreed that this is no longer relevant as flood risk is addressed under new condition 80B
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>	Agreed it is not relevant as there are no stormwater devices to be vested to Healthy Waters.

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>	Agreed that this is no longer relevant as this matter was addressed at conferencing and is addressed as required in new conditions 80B, 80E and 80EA.
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>	Agreed that this is no longer relevant as this matter is addressed in new condition 80C regarding flood storage.
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>	Agreed that this is no longer relevant as this matter is addressed in new flood conditions 80A and 80B relating to flood hazard.
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>	Agreed that this matter is addressed by a new condition 7A (DIS) (as noted above)

Stormwater conditions agreed to post expert conferencing

Per email from Healthy Waters (Hillary Johnston) to the Applicant 13 October, agreed to by M. Meyer, Auckland Council senior stormwater specialist	NMB comment
Retain SW discharge condition 7 with amended date of the Woods Stormwater assessment and the Stormwater Code of Practice	Agree
Delete SW discharge conditions 8 & 9.	Agree, as all stormwater devices are private.
SW discharge conditions 10 – retain but amend to note the raingarden device on Lot 604 is private.	Agree, noting that the private communal raingarden is on Lot 605.

Further stormwater condition

Condition 156 (SUB) requires that consent notices required on a number of the lots, as set out in the condition requiring hydrological mitigation and water quality for stormwater runoff from residential development within the Stage-1 Superlots is provided at-source, in accordance with the conditions of the existing diversion and discharge consent for Stage 1.

(Nigel comments that he has not checked this for the relevant lot numbers)

In the absence of an updated plan, a new condition is proposed to address the requirement agreed at expert conferencing and discussed above that the outlet pipes from the two communal treatment wetlands and the communal raingarden are to be private. This is proposed to be within the stormwater discharge consent conditions after Condition 10 to read:

The outlet stormwater pipes from the private stormwater devices shall be private.