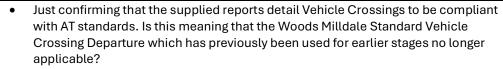
Milldale Fast Track - Specialists Comments - 23/05/2025

20/05, 23/05 – Updated / new comments

28/05 – Updated / new comments

<u>Date</u> <u>Issued</u>	<u>Name</u>	<u>Specialism</u>	<u>Comments</u>	Final Memo Provided	Applicant Response
18/05	Andrew Gordon	Noise & Vibration	No queries / requests. Flag that Condition 37 is supported subject to amendment as below.	Yes	Requested minor tweaks to
			Condition 37 includes an error as the permitted E25 noise levels within the Residential Zone are daytime 50 dB LAeq and night time 40 dB LAeq (not 55 / 45). This condition should be amended.		conditions
18/05	Ameya Bhiwapurkar	Watercare	Water The proposed areas are all within the existing live zone areas, and we have sufficient bulk/transmission capacity to service them. The developer is constructing the local network in accordance with their master plan, so this development can be approved. Wastewater The development site is within the Hibiscus Coast growth limitation area. No connection to the bulk network will be available until the upgrade of the Army Bay Treatment Plant in 2031. The applicant is aware of this limitation, and WSL has been collaborating with them on the interim servicing option. Ultimately, WSL is supportive of the development connecting once there is bulk capacity available within the wastewater network.		
18/05	Mica Plowman	Heritage & Archaeology	Confirmed no high-level comments / requests for changes		
18/05	Matt Byrne	Earthworks	 Requested amendments to documents / plans: The AMP states: The rainfall trigger event site audits will be undertaken as close to the trigger as possible and within 24hrs of the event, excluding Sundays and Public Holidays. This isn't acceptable. All audits should be completed within 24hrs of a trigger event having occurred, regardless of what day it is. Change all references to "stream P9" or "stream 21" in the AMP and recommended conditions, to "Milldale Stream" as per the AEE. 	-	
			Conditions comments:		

18/05	Nico Donovan – Perira	Māori Heritage Team	 Condition needs added to require an ESCP for Council certification ahead of the earthworks associated with wetland creation at Milldale North. Conditions need to refer to "Council" rather than Team Leader Compliance Monitoring North. Conditions that refer to GD05 must refer to amendment 3, not Amendment 2. Or "GD05, including any amendments". Proposed conditions 11 and 14 include reference to condition 1. It's unlikely that they should reference condition 1. The proposed condition that requires provision of an ESCP ahead of works commencing, should state that the ESCP must include reference to any erosion and sediment control measures for any temporary stream diversions necessary to install in-stream structures. Condition 46 is out of place. All of the ESCPs are indicative, therefore, we shouldn't refer to them in the standard conditions (i.e., in standard condition 1). New plans will be required before EW commence, and including the old plans in standard condition 1 introduces conflicting requirements (potentially). I only have a couple minor queries for my initial assessment, it just relates where TE Kawerau a Maki have mentioned their concerns regarding lighting and waterways. What options and design decisions have been made in regard to lighting, what type of streetlight designs have been chosen that minimise the amount of light pollution, spill and how have these concerns by Mana Whenua been responded to in the design? Mana Whenua have asked for the avoidance of modifying all natural waterways, and 20m setbacks from waterways and esplanade/riparian yards established. Has a map been prepared which shows which waterways are being removed, which are being retained, the width of the setbacks and where/if this is less/greater than 20m? If so has Te Kawerau a Maki seen these p	
<mark>28/05</mark>	Samuel Holmes	DE	Below comments, mostly pertaining to Stage 4C (all substages), noting we are awaiting comments off Healthy Waters on the proposed private SW networks and location of proposed public SW network at rear of properties, plus the larger stormwater assets to vest i.e. Dry Basins, Outfalls.	



 Stage 4C. Consistent through all Stage 4C substages. SW drainage to be realigned so not at rear of properties. This is a maintenance & renewal issue for Council. Healthy Waters may have further comments. Example below:



• Stage 4C. Consistent through all Stage 4C substages. Why are

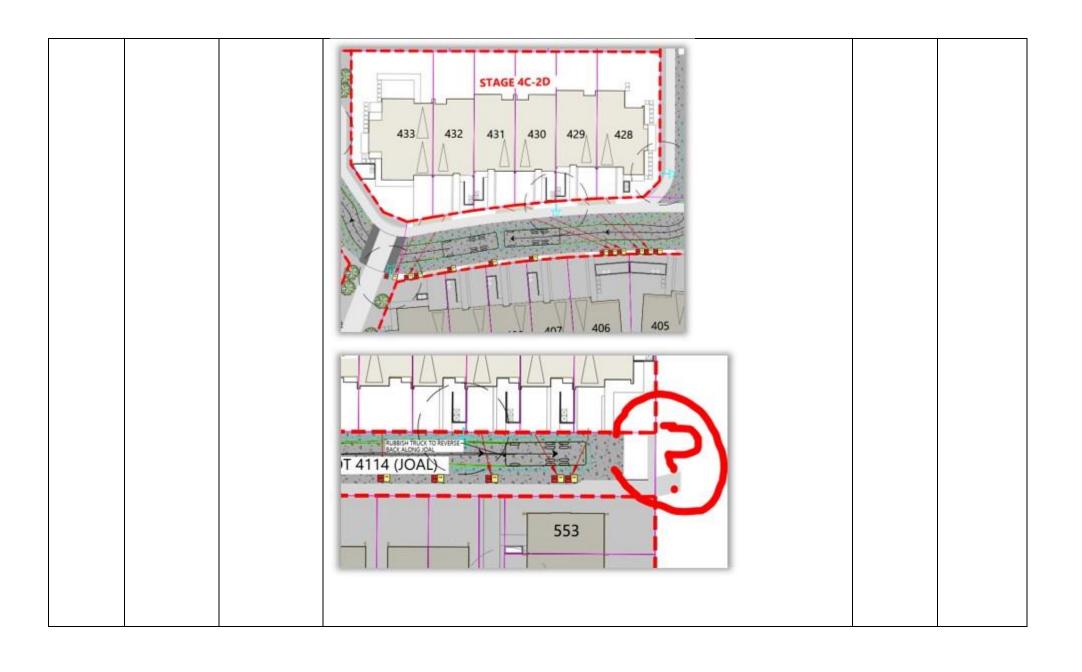
private SW networks proposed? Does not comply with AUP or SWCoP and we cannot support from an engineering perspective. Example below:



• Stage 4C. Are easements/covenants required to protect OLFP through private property? And how will water track around bends? Example below:



	Stage 4C. Consistent through all Stage 4C substages. As per AEE, wast collection is proposed via council service however as far as I'm aware trucks do not go into private property i.e. JOALs. Proposal is for bins to on only one side of JOAL? – do homeowners know this? What if they do bin space reserved for bins? No manoeuvring space and end of JOAL's to reverse. Waste Management team to confirm. As per below:
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23/05 conditions comments

 Proposed conditions refer to Milldale 'standard' Departure from Standards for Vehicle Crossings and Driveway Gradients. This does not align with the supporting documents which states AT standards will be met. Would require a Departure from Standard which could be obtained at (or before) EPA stage. Recommend lining up the documents for clarity.

48.	Vehicle Crossing Widths					
	All lots fronting <u>local</u> roads with a front boundary width of less than 14m may construct a vehicle crossing in general accordance with the <u>Type A</u> details (3.0m at boundary and 4.5m at kerb) as shown on Woods drawing P24-128-00-2070-RD Rev 1, dated Feb 2025 unless approval from Council and/or Auckland Transport is obtained to permit deviation from this design.					
49.	All lots that front <u>local</u> roads with a front boundary of 14m or greater in width can choose either to:					
	 (a) construct a vehicle crossing in general accordance with the <u>Type A</u> vehicle crossing (3.0m at boundary and 4.5m at kerb) Woods drawing P24-128-00-2070-RD Rev 1, dated Feb 2025; OR 					
	(b) construct a vehicle crossing in general accordance with the <u>Type B</u> vehicle crossing (4.8m at boundary and 4.8m at kerb) as shown on Woods drawing P24-128-00-2071 RD Rev 1, dated Feb 2025.					
	Unless approval from Council and/or Auckland Transport is obtained to permit deviation from this design.					
50.	All lots fronting <u>collector</u> roads with a front boundary of 14m or greater in width may construct a vehicle crossing in general accordance with the Collector Road <u>Type C</u> details (4.8m a boundary and 4.8m at kerb) as shown on Woods drawing P24-128-00-2072-RD Rev 1, dated Fet 2025 unless approval from Council is obtained to permit deviation from this design.					
51.	Driveway Gradients					
	All private driveways on standalone residential dwellings on single house lots that grade up from the road boundary to the lot must be designed and constructed have a maximum 12.5% grade as shown on Woods drawing P24-128-00-2075-RD Rev 1, dated Feb 2025 unless approval from Council is obtained to deviate from this design. The crossfall gradient of non-standard vehicle accesses for which a blanket consent has been approved must not exceed 2%.					

Recommend splitting up the Operation & Maintenance Manual conditions into 1)
 private devices, and 2) public devices. The JOAL owners won't need the

requirements of the Dry Basins/Rain Gardens, and similarly Council won't need the requirements of the Private SMAF Tanks in JOALs.

Operation and Maintenance Manual for Public and Private Stormwater Devices

An Operation and Maintenance Plan (OMM) must be provided to Council to address all <u>public</u> and <u>private</u> stormwater management systems. The OMM must set out how the stormwater management system is to be operated and maintained to ensure that adverse environmental effects are minimised. The OMM must include:

- details of who will hold responsibility for long-term maintenance of the stormwater management system and the organisational structure which will support this process;
- a programme for regular maintenance and inspection of the stormwater management system;
- a programme for the collection and disposal of debris and sediment collected by the stormwater management devices or practices;
- (d) a programme for post storm inspection and maintenance;
- (e) a programme for inspection and maintenance of the outfall;
- (f) general inspection checklists for all aspects of the stormwater management system, including visual checks; and
- a programme for inspection and maintenance of any vegetation associated with the stormwater management devices.
- Suggest option to remove "rain gardens" from the Stormwater Device condition as there are Dry Basin devices proposed also.

47. Stormwater Devices

All public stormwater treatment and/or attenuation devices (rain gardens) and the private stormwater detention tanks within JOALs must be designed and constructed in general accordance with the "Infrastructure Report Milldale Stage 4C, ref P24-128, rev 0, prepared by Woods, dated 28/03/2025" referenced in Condition 1, and any subsequent reports, and "Stormwater Management Devices in the Auckland Region, December 2017, Guideline Document 2017/001" and in general accordance with the approved plans referenced in Condition 1.

			28/05 – awaiting Geotech response to finalise memo	
<mark>28/05</mark>	Rue Statham	Ecology	Initial comments: There is a lack of enforceability and subjectivity of the consent conditions, namely any ecological / riparian related condition do not provide any specificity to the management plans, including timing or the prescription of what needs to be included in the plan, and no certification process for the regulator; making them completely unenforceable. As an example:	
			41. Fauna Management Plan Prior to the commencement of vegetation removal, an Indigenous Fauna Management Plan (FMP) must be submitted to the Council. The purpose of the FMP is to inform management options relating to birds, lizards and bats, during the development of the site. The FMP must be prepared by a suitably qualified and experienced Ecologist and include the following details: 1. Bird Management; 2. Lizard Management; and 3. Bat Management.	
			What are "management options"? It only requires the FMP to be submitted and no Council review? I request that a fauna management plan is developed now, with accurate prescriptions of what management is required and where. It need to identify the sites that need management, scheduling/staging, and protocols to address any potential adverse effects on fauna; a finalised management plan could be submitted and certified by Council prior to works commencing, and that would be the condition of consent. Please review other ecology conditions too for the applicant team to advise on re. management plans.	
			28/05 – Comment from Parks / UD meeting on 27/05: - Further landscaping buffer required around WWTP - Updated design guidelines document required off applicant team - Building coverage request / plans required off Dylan	
18/05	Shahriar Tehrani	AT	18/05 - See attached high-level comments	
18/05	Peter Kensington	Landscape	Confirmed no high-level comments / requests for changes. Provided comments on conditions – 16/05 email Further comments may be provided upon receipt of urban design and parks feedback.	

Richard	Groundwater &		<mark>27/05 –</mark>	
Simonds	dewatering	It is our opinion that a consent is required for groundwater diversion <u>AND</u> ground dewatering, both in the short-term during the proposed construction works and in the long	applicant	
		-term, associated with the proposed use of underfill drains.	confirmed	
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		In addition, as the proposed underfill drains are will be permanent structures, a consent		
				
		We have discussed the above issue with Marija Jukic - Team Leader CAWA and she is in		
		1. WWLA indicate that as result of the proposed activity the large natural inland		
		<u>Minor Issues</u>		
		· · · · · · · · · · · · · · · · · · ·		
		Consent – Milldale Wainui.		
		3. The attached definitions and Table 1 which are included in all Dewatering and		
		Initial questions / requests		
		The Applicant should apply for a Consent which includes both dewatering and		
		1		
			WWLA state that "dewatering is not required because groundwater will be managed by underfill drains and realigned streams". However, we consider the use of passive drains to move water from one area to another is still a form of dewatering, as well as groundwater diversion. In addition, as the proposed underfill drains are will be permanent structures, a consent duration of 35 years is considered appropriate. It is therefore our opinion that in relation to E7 Taking, Using, Damming and Diversion of Water and Drilling the proposed works do not meet the permitted activity standard E7.6.1.6 (2 &3) as the take of groundwater i.e., dewatering during excavation will be for longer than 30 days and there will be permanent dewatering/take beyond the construction period. This requires a restricted discretionary activity under rule E7.4.1(A20). We have discussed the above issue with Marija Jukic - Team Leader CAWA and she is in agreement with our assessment. 1. WWLA indicate that as result of the proposed activity the large natural inland wetland in the northwest of 147 Argent Lane may be reduced in size by 32% - this reduction in size appears to be a more than minor effect i.e. a potentially adverse effect. Minor.Issues 2. We note that in Condition 69 the CMW Geotechnical Investigation Report dated 25 February 2025 has been superceeded the correct version dated 24 March 2025 is however given in the table in Section 2.6 of Volume 6: Proposed conditions of Consent - Milldale Wainui. 3. The attached definitions and Table 1 which are included in all Dewatering and Groundwater Diversion Consent are missing from the Consent Conditions	WWLA state that "dewatering is not required because groundwater will be managed by underfill drains and realigned streams". However, we consider the use of passive drains to move water from one area to another is still a form of dewatering, as well as groundwater diversion. In addition, as the proposed underfill drains are will be permanent structures, a consent duration of 35 years is considered appropriate. It is therefore our opinion that in relation to E7 Taking, Using, Damming and Diversion of Water and Drilling the proposed works do not meet the permitted activity standard E7.6.1.6 (2 &3) as the take of groundwater i.e., dewatering during excavation will be for longer than 30 days and there will be permanent dewatering/take beyond the construction period. This requires a restricted discretionary activity under rule E7.4.1(A20). We have discussed the above issue with Marija lukic - Team Leader CAWA and she is in agreement with our assessment. 1. WWLA indicate that as result of the proposed activity the large natural inland wetland in the northwest of 147 Argent Lane may be reduced in size by 32% - this reduction in size appears to be a more than minor effect i.e. a potentially adverse effect. Minor Issues 2. We note that in Condition 69 the CMW Geotechnical Investigation Report dated 25 February 2025 has been superceeded the correct version dated 24 March 2025 is however given in the table in Section 2.6 of Volume 6: Proposed conditions of Consent – Milldale Wainui. 3. The attached definitions and Table 1 which are included in all Dewatering and Groundwater Diversion Consent are missing from the Consent Conditions Initial questions / requests The Applicant should apply for a Consent which includes both dewatering and

			Please provide details of the proposed mitigation or remedial measures in relation to the potentially adverse effects of the proposed dewatering and groundwater diversion on the natural inland wetland in the northwest of 147 Argent Lane. Please update Condition 69 with the most up to date CMW Geotechnical Investigation Report. Please consider including the attached definitions and Table 1 to the conditions.	
<mark>28/05</mark>	<mark>Antoinette</mark> <mark>Bootsma</mark>	Streams / wetlands	Initial comments re. wetland matters. I note that I will give particular attention to groundwater-related matters next week, including potential drawdown and vertical stream realignment. I will liaise with the CAWA team on these matters.	
			 For ease of reference, please provide an integrated wetland plan showing the following: Wetlands delineated by Viridis based on the MfE wetland delineation protocols Putative wetlands identified by Viridis Wetlands confirmed by WWLA based on a hydric soils and hydrology assessment. Wetlands to be reclaimed. Please provide a proposed monitoring schedule and target outcomes from which to confirm that offset/compensation outcomes have been achieved. I note that wetland plants may be used as indicators for wetland establishment for this site. Furthermore, an adaptive approach makes sense that enables flexibility in compensating for areas where wetland vegetation fails to establish by expanding other areas of wetlands. This could be reflected in monitoring targets. My concern is that replacement planting in areas where wetland species fail to establish may mask he fact that long-term, stable wetland characteristics fail to form in certain areas of the new proposed wetland Regarding the proposed new wetland hydrology, I consider that a conceptual, defensible understanding of the water volume (including contributing catchment, frequency of significant overland flows amongst others) and soils (depth, relative impermeability and runoff characteristics) that are proposed to support new wetland habitat across steep slopes, is required to support a proposal for the offset of permanent wetland loss. It is uncertain why the shape of the proposed wetland is preferred over a new wetland aligned along the length of the current wetlands and stream channel? This shape is not in keeping with the wetlands in the region of the site. 	

• Please provide SEV and ECR/WEV excel datasheets

Our approach to engage in direct discussion with the applicant's team has been very constructive so far and I am happy to be available to them if they would like to chat through any of the above.

23/05 additional comments:

- Please update the planting plan to provide a suitable alternative to *Machearina**Articulata* which may not establish successfully.
- Please provide a proposed monitoring schedule and target outcomes from which
 to confirm that offset/compensation outcomes have been achieved. I note that
 we discussed using wetland plants as an indicator for wetland establishment for
 this site. Furthermore, an adaptive approach makes sense that enables flexibility
 in compensating for areas where wetland vegetation fails to establish by
 expanding other areas of wetlands. This could be reflected in monitoring targets.
- Regarding the proposed new wetland hydrology, please provide a discussion on how water volume, sustained across times between storm events, will be able to support wetland adapted plants? What is the size of the contributing catchment?
- Please discuss why the shape of the proposed wetland is preferred over a new wetland aligned along the length of the current wetlands and stream channel?

28/05 – It was agreed at 27/05 meeting that Antoinette will have separate meeting / workshop with Mark D to review further matters:

- The wetland soils/hydrology assessment has not addressed all the areas earmarked as potential wetlands.
- There are various inconsistencies in the hydric soils assessment that could be discussed. I'm in the process of formulating these into structured questions
- I am concerned that wetlands to be reclaimed are underestimated and that this will effect the receiving streams. My assessment overlaps with the surface water diversion and stormwater assessment here.
- I am unable to confirm that culverts comply to PA standards since wing walls have not been added to the length of the culverts but rather to the erosion/scour protection length.

			Duration and the state of the s	1	
			Progressive encasement results from the proposed culverts and this is not		
10/05		0	considered in stream loss or value assessments.		
18/05	Ruben	Contamination	The DSI refers to historical investigations, remediation and validation (eg. Stage 4c) that		
	Naidoo		may be associated with this development- if so, it is recommended that the validation		
			reports referred to in the DSI be provided for verification purposes.		
			Limited contamination in exceedance of the NESSCS human health guideline values and		
			the AUP -E30 discharge criteria have been identified, and the application is deemed a RD		
			activity in terms of the NES and a Controlled activity in terms of the AUP E30.		
			activity in terms of the NES and a Sontrolled activity in terms of the Aor Ess.		
			The proposed conditions offered relate to the NESSCS and as a Controlled activity in		
			terms of the AUP E30, additional standard conditions will be required in this regard.		
			Further comments on conditions awaited.		
18/05	Cas Hannink	Parks / Land	Initial comments:		
		Advisory (lead)	Infrastructure and berms		
			It appears that there is stormwater infrastructure located directly under the front		
			berm. These locations may conflict with the establishment and long-term health		
			of street trees. Please confirm the depth of services where they are proposed		
			under the front berm while noting the below:		
			 Please demonstrate how the proposed street tree planting will achieve 		
			the required 12-15% tree canopy closure within the road corridors, in		
			alignment with Auckland Transport's sustainability requirements and		
			Auckland Council's Urban Ngahere Strategy.		
			Deales Discourse of south or the state of the state of the same of		
			Parks Planning evaluates whether the berm width would provide		
			sufficient space for medium to large trees to grow, thereby facilitating		
			canopy closure while ensuring safety and maintainability. Please ensure adequate planting conditions and confirm that berm widths are at least		
			2.1-2.5m per tree and that each tree has access to at least 10-15m ³ of		
			soil to support healthy growth in accordance with TDM Engineering		
			Design Code for soiling planting proposed in road reserves.		
			Interfaces		
			Interruoco		
			Retaining Wall 09 interfaces with the Stage 12 neighbourhood park and exceeds 2		
			metres in height. According to the slope management assessment in Section 3.6		
			of Appendix 2L, a 1.2-metre-high pool fence is proposed to maintain openness		
			or Appendix 2L, a 1.2-metre-night poor lende is proposed to maintain openiess		

while also providing privacy and safety. This results in a combined structure potentially reaching a height of 3.2 metres. However, the applicant's own design guidelines and landscape plans do not clearly demonstrate how the visual impact of these combined elements will be mitigated, and no landscaping treatment has been identified. The neighbourhood park is located to the southeast of the superlot where shadowing may affect the public space. Concerns for passive surveillance and CPTED outcomes remain.



- Retaining wall 14 is located on the boundary to a proposed drainage reserve to
 vest, exceeding to 2.0-2.5m in height, while as previously noted above, will likely
 locate 1.2m fencing in combination. Similar to the above, the applicant's own
 design guidelines and landscape plans do not clearly demonstrate how the visual
 impact of these combined elements will be mitigated, and no landscaping
 treatment has been identified. Concerns for passive surveillance and CPTED
 outcomes remain.
- Confirm the intended mitigation to reduce surveillance, visual and amenity
 effects of large-scale retaining walls on shared boundaries with reserves to be
 vested and confirm that they will be located entirely (including footings and
 support structures) within private lot boundaries.

General landscaping review for consideration

- Seek larger growing trees on the stream side of Stream Road, as there will be no conflict with dwellings
- Dry Basin/drainage reserve details are considered to be very general in reference to bollards, fencing, pathways and structures in the dry basin. The species proposed are considered satisfactory. Please provide additional details so Parks Planning can make further accurate determinations.
- Stage 12 reserve The reserve has the opportunity for larger growing trees such as Acer saccharum, Juglans nigra, Platanus orientalis to be incorporated. This will increase future canopy cover in alignment with the Urban Ngahere strategy.

Neighbourhood parks

- The neighbourhood park re-configuration is appreciated. The property Provision team is requesting greater clarity on the neighbourhood park locations and if all relevant metrics with the associated Open Space Provision Policy (2016) are met such as:
 - o Can facilitate a kick ball space at a gradient at a maximum of 3%.
 - o Rest of the area is no greater than 5%.
 - Land is not subject to flood plains (1 in 100 year) and overland flow paths.
 - Land is free from infrastructure.
 - There are no proposed utility devices within the lot or within 30m of road frontages.
- Please provide an additional north-south cross section for lot 7000 to determine the relevant gradients, topography and contour lines.

			Drainage Reserve - Activation Areas*	
			The number of bridge connections could raise concerns from an operations and	
			maintenance view. Bridges are likely to require local board approval and will	
			generally not be supported. It also raises activation and asset management concerns for the drainage reserve areas. These are likely to require	
			reconfiguration at EPA and detailed design to avoid bridge structures. The focus	
			will rather be on pathway connections in the overall design.	
			Awaiting input from Healthy Waters, AT and Subdivision specialists so further	
10/05	Lavia	Air Ouglitus 9	queries may be issued.	
18/05	Louis Boamponse	Air Quality & Hazardous	Air quality (E14) • Please provide a draft air quality management plan (AQMP) detailing all	
	m	Substances	monitoring, management and operational procedures, methodologies	
			and contingency plans for all applicable stages of this project. The AQMP	
			must include, but is not limited to, the following:	
			(a) Details of complaint response procedures and investigations;	
			(b) Procedures to minimise discharges of contaminants into air, including dust and	
			odour;	
			(c) Procedures for responding to process malfunctions or accidental dust (or fine particulate), fume, litter or odour discharges;	
			(d) The identification of staff responsibilities;	

			The applicant acknowledges that the proposed temporary wastewater treatment plant is a discretionary activity under AUP (OP) rule, E14.4.1(A163). Hence an air discharge consent is required. Please comment further on this. Hazardous substances (E31) We note that a draft Environmental Monitoring Plan is provided, but please provide a draft Environmental Management Plan (EMP) for the operation of the proposed Wastewater Treatment Plant. Include detailed spill response and emergency management plan.		
20/05	Susan Fairgray	Economics	20/05 - Please see attached Memo	Yes	
			Clarification sought if community / social infrastructure uses are proposed within the Centre.		
20/05	Hillary Johnston	Healthy Waters	Public Devices (Operation): Insufficient information has been provided to demonstrate that the proposed public devices have been designed with sufficient space available to enable operation and maintenance activities to be carried out in accordance with Council standards, guidelines and requirements. In addition, it is unclear whether the proposed number of devices has been consolidated to minimise the future maintenance burden. Further discussion with the Healthy Waters is encouraged in this regard. Public Devices (General Design): All proposed devices have been proposed as dry basis, which is generally supported to achieve the SMAF provisions. However, the consent should not preclude the ability to design some of these devices as wetlands at the Engineering Plan Approval (EPA) stage in coordination with Healthy Waters, particularly the ones with the large catchment area (e.g. Basins I and H). Public Devices (SMAF Design): Proposed design arrangement to accommodate SMAF requirements is unclear particularly around the 'offset mitigation' approach (including taking into account discrepancies between infrastructure reporting and engineering plans). There are relatively large catchment areas proposed that include an 'offset mitigation' approach, some of which are discharging directly into the stream environment. This approach is not supported by Healthy Waters. There may be distinct catchment areas where an 'offset mitigation' may be considered as a BPO (e.g. small catchments where alternative arrangements would result in small roadside devices that cannot be		

constructed or maintained), however this does not appear to be the case here given the scale of catchment areas proposed that include this approach, and no BPO assessment has been provided in this regard either. There is a risk that the proposed design may not meet the requirements of the overarching SMP in this context. Further discussion with the Healthy Waters is encouraged in this regard.

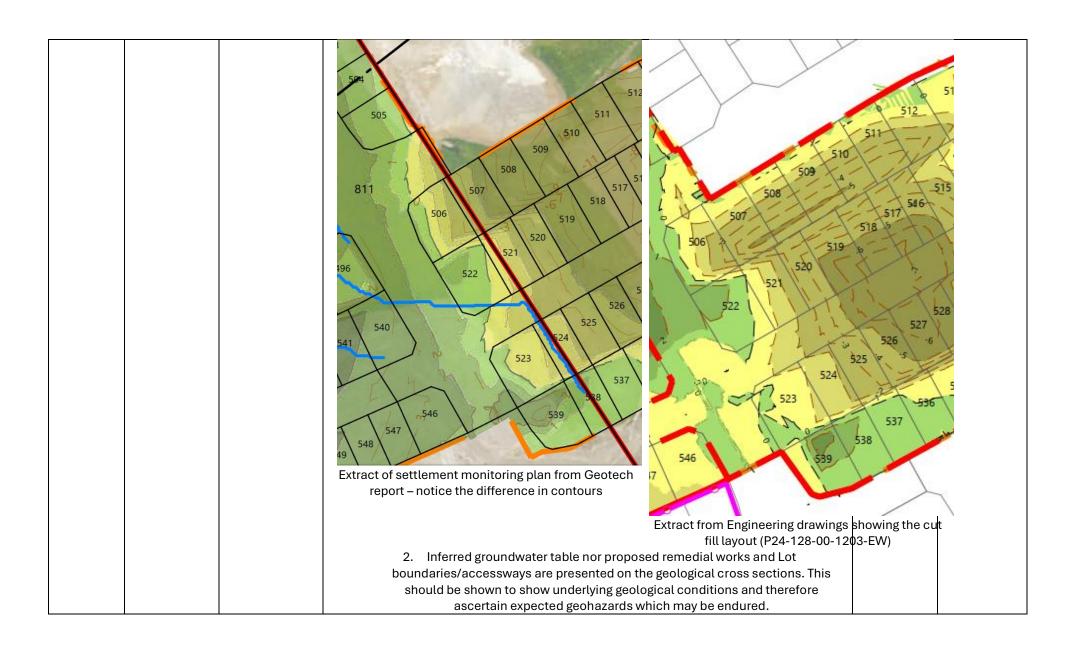
Public Pipe Network: There is a number of new proposed public network shown to be located in the rear yards of the private residential lots, with the majority located at the base of earth reinforced slopes. Due to the ongoing maintenance burden these are unlikely to be accepted at the Engineering Plan Approval (EPA) stage. Further discussion with the Healthy Waters is encouraged in this regard.

Flooding (Management of Overland Flows): Several Overland Flow Paths (OLFP) are being conveyed within the proposed public road corridors. Although this approach is supported, there are several locations (with reference to the provided OLFP cross-section information) that show the acceptable design safety criteria being considerably exceeded. This is considered to present high flood hazards and risks to people, property and infrastructure and the design should be amended to rectify this.

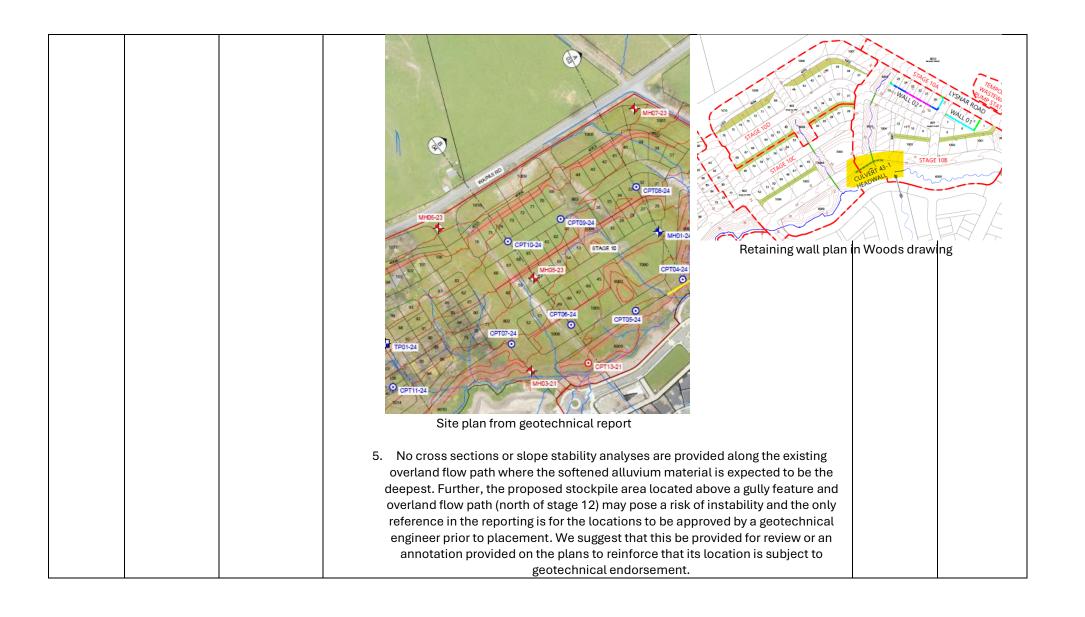
Land to Vest (Overall): A number of stormwater management devices are proposed to be vested to Healthy Waters, which is generally supported. However, there are several areas which do not include stormwater management devices (i.e. stream corridors) which are also proposed to be vested to Healthy Waters. There is a possibility that the extent of the area may exceed what Healthy Waters are prepared to accept. In this regard, insufficient details have been provided on this land including but not limited to slopes, gradients, geotechnical stability including prevention of localised bank erosion due to expected flood velocities (i.e. geomorphic and erosion risk assessment), planting plans, etc. In addition, no comprehensive assessment has been provided that demonstrates how the proposed drainage reserves are delivering both an essential stormwater function and a public benefit function (e.g. passive or active recreation, amenity, etc.) which cannot otherwise be achieved if these areas remained in private ownership. Acceptance of the proposed land is at the discretion of Healthy Waters and subject to (but not limited to) meeting all necessary criteria. Healthy Waters encourage further engagement on proposed land and assets to vest.

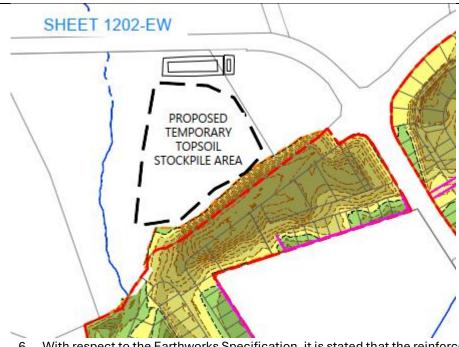
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			Land to Vest (Survey): All land proposed to vest to Healthy Waters should be as 'land in		
			lieu of reserve – for drainage purposes' not 'local purpose (drainage) reserve'.		
			Riparian setback: Due to steep slopes and in-situ soils, which are considered		
			susceptible to erosion, the recommended riparian setbacks may need to exceed the		
			currently proposed 10m. It is recommended that a geomorphic and erosion risk		
			assessment is undertaken parallel to the geotechnical and ecological assessments to		
			determine final setback requirements.		
			Flooding (Hydraulic Modelling): The Catchment Management team would like a copy of the Applicants model to verify and confirm the modelling assumptions and the corresponding stormwater management approach. Please provide all of the modelled pre-development model and post-development scenarios. This is essential to accurately assess and confirm potential downstream effects (the Wainui Road Bridge, the properties located between the Wainui Road Bridge and Lysnar Road, and the property at 147 Argent		
			Lane located between Stages 11 and 12) and confirm support for the stormwater management approach.		
			Flooding (Assessment of Effects): Limited information has been provided on the assessment of effects particularly with regards to 147 Argent Lane and the properties located between the Wainui Road Bridge and Lysnar Road. Maps have only been provided for 1% AEP MPD scenario and no maps have been included that support the statement that there are no changes in the flood extents downstream of the proposed development. Further discussion with the Healthy Waters is encouraged in this regard.		
<mark>28/05</mark>	Dylan Walton	<mark>Wastewater</mark>	23/05: See attached memo – requires specialist comments to queries raised.		
			28/05 - & wastewater samples monitoring needs added to Management Plan and conditions - Overflow needs added as a consent condition		
	Martin Meyer	Stormwater,	Awaiting comments		
		ITA			
22/05	Marija Jukic	Surface water	22/05 – Initial comments I emailed to agent: I note that Figure 7 of the Overview Report	<mark>27/05 –</mark>	
		Diversion	refers to a Permanent Stream Diversion under s14, requiring a Water consent, and in	applicant	
			Table 6 of the same document they indicate a Diversion Consent (s14) is required for	<mark>confirmed</mark>	
			Stages 10-13. However, in the AEE for Stages 10-13, they only refer to a stream diversion	requires	
			under Chapter E3 (Rule E3.4.1 (a19) and do not refer to a surface water diversion consent	<mark>both</mark>	

			under E7 rules. I consider they need both, and assume the omission in the AEE is an error, given the references made in the Overview Report. Could this please be checked with the applicant	consents and additional assessment will be provided	
23/05	Luke Xu	Geotech	23/05 Initial comments: Stage 10-13:		
			1. Time to achieve estimated t90 settlement not stated, though this is partially		
			addressed in the settlement memo where it stated previous stages observed time		
			to t90 around 9 months to 1 year. We suggest that this be confirmed to aid in		
			managing and controlling the effects of earthworks causing		
			subsidence/instability onsite and ensure safe building platforms are achieved		
			before 224(c) is issued following objectives and policies under E38 subdivision.		
			We are agreeable that a settlement monitoring plan is required. Note that the		
			earthworks plan relied upon for the settlement monitoring plan in the		
			Geotechnical Report does not align with the plan supplied by Milldale (drawings :		
			P24-128-00-1202-EW and P24-128-00-1203-EW), a finalised settlement		
			monitoring plan should be submitted.		



3. There are cut works proposed at the boundary of Stage 10-13, in which it does not seem to have commented on how the boundary stability will be achieved, this includes new retaining extending from Stage 13 connects to another retaining wall east of Stage 13 (Wall 22). This is necessary to assess against E12.6.2(2) and E12.8.2(1)(c). We suggest preliminary recommendations or methodologies be provided to manage the effects. 4. There is discrepancy in the retaining wall plan where Woods Development does not show the full extent of the retaining wall in the Stage 10-11 works area where CMW considered it to be necessary and have modelled this in their slope stability outputs.





- 6. With respect to the Earthworks Specification, it is stated that the reinforced slopes and retaining structures are excluded from this specification as it would be covered by Building Consent and specific structural specification. But there are still earthworks components for those works and it is not stated if that would be covered by the Structural specification as well.
- 7. Table 4: Soil Fill Testing Requirements of the Earthworks Specification deviates from the minimum testing requirements recommended by NZS4431:2022, particularly the 'field water content and density' for all three types of soil fill and 'shear strength' for the fine grained and intermediate grained fill.
 - a. Of note, while NZS4431 has acknowledged that the geotechnical designer can modify to suit project-specific requirements, evidence should be provided to demonstrate that the amended requirements will result in the same or better engineered fill. No evidence has been supplied to address this.
 - 8. Table outlining investigations in Section 5.1 references TP01-24 TP32-24 however Appendix 2A Geotechnical Report Part 4 appears to omit TP04-24.

- 9. We note that Section 5.2 reports laboratory testing is still pending results that was tested for this stage of the investigation. These should be updated when available.
- 10. We note that the design parameters presented in the Slope stability assessment appears to omit the previously identified softened base contact within the Mahurangi Limestone and the transitional Mahurangi Limestone referenced in Section 7.3 of the geotechnical reporting. This should be justified.

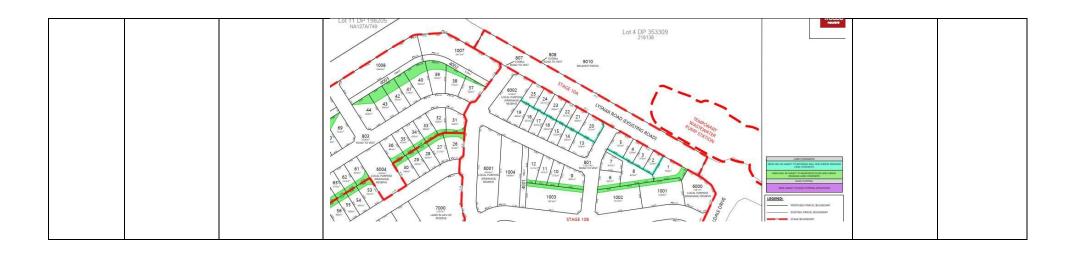
Section 2 of slope stability assessment

Section 7.3 of geotechnical

Geotechnical Design Para			
Unit Description	γ (kN/m³)		
Engineered Fill (proposed)	18		
Tauranga Group Alluvium (Stream)	17		
Tauranga Group Alluvium (Ridge)	17		
Residual Northland Allochthon	18		
Transitional Hukerenui Mudstone	18		
Hukerenui Mudstone	21		
Transitional Undifferentiated Mangakahia	18		
Undifferentiated Mangakahia Rock Mass	21		
Mahurangi Limestone	19		

	Geotechnical I	Design Parame
Unit Description	Strength Range	γ (kN/m³)
Proposed Engineered Fill	Vane Shear Strength >110kPa	18
Tauranga Group Alluvium (Stream)	CPT Qc < 1MPa	17
Tauranga Group Alluvium (Ridge)	SPT N values 1 to 8	17
Residual Northland Allochthon Soils	VSS 40 to >200kPa	18
Transitional Undifferentiated Mangakahia Complex	VSS 70 to >200kPa SPT N values 3 - 39	18
Undifferentiated Mangakahia rock mass	SPT N values 40+	21
Transitional Hukerenui Mudstone	SPT N values 12 -29	18
Hukerenui Mudstone	SPT N values 30+	21
Mahurangi Limestone - softened base contact	•••	18
Transitional Mahurangi Limestone	VSS >200kPa	19
Mahurangi Limestone	SPT N values 40+	19

11. Appendix F, Figure 3 of the slope stability assessment omits remediation outputs	
for Section A, which was identified as requiring remediation 'retaining wall with	
palisade action' in Section 5.	
12. Adopted parameters for the modelled retaining structures on the SLIDE outputs	
not shown e.g., Section A – Proposed with remediation (Retaining Walls), Section	
K- Proposed with Remediation (Shear Key and Retaining Wall).	
13. It is noted that restrictions are expected to be applied above and below the	
reinforced earth batters (from Section 8), an indicative plan should be provided to	
show the locations of development restriction zones as this may impact Lot	
placement and development yield.	
14. Reinforced slopes shown in the Milldale plans (e.g., P24-128-00-0013-SU) are not	
clearly shown in the remedial slope stability analyses e.g., Cross Section A and B	
etc. Are reinforced slopes still required in these areas or just drainage? We also	
note that Sections A and B has been excluded from drawing 25 by CMW for	
reinforced earth batter slopes. This creates inconsistency, may alter the ground	
profile and development restriction zones.	





15. **(Comment to DE)** Considerations should be made to the potential migration of streams over the 100 year period for assessment under E36.9(2). Noting that streams can meander and therefore encroach on building platforms/access ways.

Key concern:

Additional characterisation of geohazards required to inform consent sought including settlement monitoring of filling works and slope stability analyses (comment 5, 10, 12 and 14) would be required to inform on E12, E36 and E38 assessment.

Stage 4C:

- 16. The related documents in Section 4 of the report were not provided for review in this submission. There is no specific geotechnical site investigation provided for the site. The geotechnical model was based on existing site investigation data on the subject and adjacent sites. This poses a few risks:
 - a. Section 5 of the report refers to data presented in Geotechnical Investigation Reports for Stage 2, 3 and 4. These reports were not submitted as part of this consent for review.
 - b. Of the investigation shown on the site plan for the Stage 4C area, there are only 3 test pits that allows the visualisation of the subsurface material, which are concentrated at the northwest extent of the site. The rest of the investigation consists of CPT only. There is also a lack of investigation at the northern portion of the site.
 - c. No representative geological cross sections were provided.
 - d. It was not stated how the groundwater levels across the site were inferred.
- 17. While it is understood that slope stability analyses were not undertaken on the basis that the site is on a gentle landform, the proposed filling and retaining would result in level difference of up to 2m, where it would be appropriate to conduct slope stability analyses to confirm that global instability is not an issue.
- 18. No recommendations or preliminary construction methodology were provided for the proposed retaining wall.
- 19. Section 8.2 have mentioned that up to 50mm of post construction settlement may be expected for future development load of 10kPa, it has recommended if higher future development load is proposed, either further investigation and settlement monitoring should be undertaken during Phase 1 works, or additional settlement mitigation measures should be implemented during Phase 2 works. We suggest that be communicated to the applicant and included as an advice note or other similar approaches to ensure it is captured.
- 20. It is noted that earthworks and retaining are proposed to be staged, details should be provided to clarify how stability will be maintained between the substages of Stage 4C2 5 (particularly where earthworks and retaining are proposed at the stage boundaries).
- 21. Evidence of preloading, geotechnical supervision records etc., which was carried out during 'Earthworks 2' referenced in section 8.2 of should be provided for to support safe building platform and accessway as this impacts Stages 4C2 and 4.

Key concern:	
- Lack of site investigations to support reporting, assessment and	
recommendations.	
<u>WWTP:</u>	
22. The related documents in Section 4, in particular the Geotechnical Investigation	
Report for Milldale Stage 8, was not provided in this submission for our review.	
This is expected to include the previous investigation information that was	
referenced in Section 5.	
23. Site plan only showing locations of hand augers undertaken for this stage of the	
works, though Section 5.1 has stated previous investigation locations should also	
be shown on the site plan. It is unsure what deep investigation data was relied on	
to create the geological cross section as the hand augers are only 5m deep.	
24. Groundwater level and dry basin profile not shown on the geological cross	
section.	
25. No slope stability analyses were provided on the basis that the site is gently	
sloping and maximum cut and fill batter gradients of 1V:5H and 1V:3H	
respectively will be created. While the 1V:3H slopes made of engineering fill	
could normally considered conservative for stability, given the large surcharge	
loading and underlying 'problematic' Northland Allocthon residual soils, it would	
be more appropriate to undertake slope stability analyses to confirm the stability	
of the cut and fill slopes.	
26. Advice note is recommended for:	
a. structural or civil engineer to confirm the estimated differential	
settlement of 25mm is acceptable for the proposed wastewater	
treatment plant.	
b. settlement analysis to be reassessed if there is a change in the assumed	
loading.	
27. Table 2: Testing Requirements of the Earthworks Specification deviates from the	
minimum testing requirements recommended by NZS4431:2022, particularly the	
'field water content and density' for all three types of soil fill and 'shear strength'	
for the fine grained and intermediate grained fill.	
a. Of note, while NZS4431 has acknowledged that the geotechnical	
designer can modify to suit project-specific requirements, evidence	
should be provided to demonstrate that the amended requirements will	

			result in the same or better engineered fill. No evidence has been	
			supplied to address this.	
			Conditions: Stage 10-13	
			 Condition 26, 43, 86 refers to an outdated repot (most up to date version is Rev3, dated 24 March 2025). (Please note that the groundwater conditions also feature this outdated report). Condition uses the word 'shall' when we should be using 'must' for the Settlement Monitoring Plan. SMP also appears to reference a site management plan and this may confuse the two plans. Condition 43 and condition 44 appears to be in duplication and we recommend removing condition 43 in favour of Condition 44 to make it clear on expected completion documentation requirements. Condition 44 for the geotechnical completion report should include a Statement of Professional Opinion and certified as-built plans. 	
			Stage 4C - We agree that a condition for a settlement monitoring plan, supervision of works and geotechnical completion reporting is required. Condition 29 for the geotechnical completion report should include a Statement of Professional Opinion and certified as-built plans. - We suggest that condition 42 remain open for update noting the lack of site investigations undertaken may warrant a new report to be submitted and reviewed.	
			 WWTP We agree with that supervision of works are required. Noting works are relatively smaller in scale, we suggest that the contents outlined in Condition 20 may not be warranted for the activity. We suggest that the condition be revised to be more akin to Condition 43 for the Stage 10 – 13. 	
20/05	Philips Augustine	Traffic	20/05 – Initial comments: 1. Loading bay not provided. Noted, the lots will be sold separately in future, but considering the whole consent, the	

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			Note: In the majority of the locations, parking of heavy vehicles will block the VC of the		
			adjacent lot. Right to establish and maintain driveway- schedule 5, section 2c- ROW to be		
			kept clear at all times.		
			2. No speed management measures are proposed through JOAL. Recommendation		
			is to consider speed management measures as the length of JOAL is >30.0m, and		
			the proposed can expect a high number of active modes and vehicle interaction.		
			3. No visibility assessment & swept paths have been provided. Request to		
			incorporate the same. This needs to be assessed upfront.		
			4.—Noted, the proposed pedestrian linkages and the applicant liaising with the AT		
			Metro team to develop a high-level Public Transport plan for the Precinct as it		
			continues to grow. Request to confirm the time frame of the future PT network.		
			Assessment to be provided if the PT connectivity is not developed before the completion		
			of the proposed stages.		
			5. Lighting design to be submitted upfront. As the proposal consists of a large		
			number of parking spaces are pedestrian access is considered critical from a		
			safety point of view.		
			The same must be free from any vehicle tracking overlap.		
20/05	Rhys	Arborist	20/05 - No requests / clarification needed.		
20/03	Caldwell	Albolist	20/03 - No requests / claimeation needed.		
	Dave Paul &	Policy/	Awaiting comments		
	Claire Gray	-	Awaiting confinents		
	-	Strategy	Con an audinating an acidiata to informa Konia wall		
	Ken Berger	Subdivision	Cas coordinating specialists to inform Ken's work		
20/05	Mustafa	UD	20/05 Initial comments:		
	Demiralp				
			Stage 10–13 (Subdivision)		
			Positive Aspects:		
			Block structure aligns with topography, creating a logical and legible urban form.		
			50-60m deep urban blocks are suitable for development.		
			Lot depths generally range between 25–30m (UD report Figure 24. PG33),		
			supporting a mix of residential typologies.		
			Mid-block level changes are proposed to reduce the need for tall retaining walls		
			at street edges. This approach appears positive based on the sectional drawings		
			provided, though I will review these in more detail at a later stage.		
			-		
			Rear lanes included in some blocks to improve street amenity, reduce crossings, A parison of indicates a street amenity, reduce crossings,		
			and consolidate services. A series of indicative lot testing options are presented		

			in Section 5.0 of the Urban Design Report. These present functional site layouts and support the block/lot depths and sizes suitability for development. Integration of green network and reserve-edge roads is positive. Local parks are spaced well (approx. 400–700m apart), framed by road frontages and embedded within the block structure. Superlots near park edges and centres are well-positioned to support future medium-density housing outcomes. Concerns: Southern interface of Stage 13 lacks sufficient connections to the Future Urban Zone (FUZ), with only a single collector road serving an 800m interface.	
			Stage 4C (Land Use Consent) Positive Aspects: Generally, a well-designed site layout with a perimeter block structure, positive street response. Most dwellings have dual frontage: street-facing outlook and rear lane access for	
			vehicles and services. • The layout will create positive streetscapes, positive front yard landscaping and support street interface quality in line with H6.3(3) policy expectations. • The block structure will support a walkable and well-organised urban environment.	
			 A reasonable level of variation for the façade composition, roof forms and architectural character is proposed, which will support a quality built environment and streetscape outcome. The arrangement of building blocks accessed only through the JOALs, such as super lots 4004,4008,4009, and 4021, will need to be reviewed in detail to make sure they are functional and suitable for PC79 direction. 	
28/05	Jennifer Jack & James Young	Waste	Awaiting comments	

<mark>28/05</mark>	<mark>Taff Wikaira</mark>	<mark>Hokura</mark>	The Secretariat finds that the application aligns with the lwi Planning Documentation from	
			Te Kawerau ā Maki and that the applicant can appropriately manage the quality of	
			stormwater from the Proposal Site. This also includes the incorporation of significant	
			native vegetation planting and sustainability practices. Conditions of consent will manage	

the effects of earthworks, particularly in terms of any discharges to the streams. The development could be constructed in a manner that is consistent with the environmental outcomes sought by Te Kawerau ā Maki. The applicant has committed to ongoing engagement with Te Kawerau ā Maki.	
In light of the information provided, the Secretariat finds no issues with the application, the applicant has provided the necessary information and followed the processes required by them. They have engaged in good faith and are working through recommendations based on the reports received for various parts of the project.	