ENVELOPE

MT WELCOME, PUKERUA BAY, PORIRUA

Greater Wellington section 53 comments – civil engineering response schedule

PROJECT	Mt Welcome, Pukerua Bay, Porirua	**ENVELOPE REF**	1753-02
APPLICATION	FTAA-2603-1181	**GW FILE**	FTA260348
GW COMMENTS	Comments on a substantive application under section 53 of the Fast-track Approvals Act 2024, Wellington Regional Council, 28 July 2026	**DATE**	31 July 2026
PREPARED BY	Kyle Dirse		

Note that the responses are either supported by further detail or accepted and incorporated into the design and the reports. A summary of the changes is provided in the memorandum.

ISSUE	DETAIL	SOURCE	ENVELOPE RESPONSE
Issue 1: Stormwater	**No options assessment for water sensitive design** The proposal does not incorporate water sensitive urban design methods, including source control. An options assessment is required addressing, as a minimum: treatment train alternatives beyond sole reliance on centralised raingardens including source control; rainwater harvesting; alternative raingarden locations that could support infiltration where geotechnical conditions permit; catchment-scale trade-offs; and integration of stormwater functions with non-water drivers. Alternatives considered and design choices must be documented.	s53 comments para 39(a); App 2 paras 9-10	Given the site's topographical and geotechnical constraints, many WSUD methods are excluded. What's been proposed is fit for purpose for the site, backed by technical assessment and modelling. An options assessment has been prepared within the SMP, with a more detailed version updated and appended this response
Issue 1: Stormwater	**Raingarden sizing inconsistent with SMP imperviousness assumption** The SMP assumes 75% imperviousness for lots, but raingarden sizing adopts a fixed 200 m² roof + 36 m² driveway = 236 m² per lot. For 500-600 m² lots, 75% imperviousness gives 375-450 m². The raingarden design is to be revisited to reflect the assumed lot imperviousness.	App 2 paras 17-19	The 75% lot imperviousness assumption is a conservative catchment-level allowance adopted for pond sizing and hydraulic and flood modelling. It is not the basis for sizing individual lot raingardens. In accordance with the Wellington Water WSD guideline, lot raingardens are sized based on the contributing untreated impervious area draining to the device.

ENVELOPE
James Smith Building, Level 1, 65 Cuba Street, Te Aro, Wellington 6011

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			The current design allows for 200m² of roof and 36m² of driveway per lot, compared with the anticipated 160–180 m² dwelling typologies.
Issue 1: Stormwater	**Raingardens below the 2% surface area requirement** Against the Wellington Stormwater WSUD Treatment Device Design Guide (Wellington Water, 2019) requirement for a bioretention surface area of approximately 2% of contributing impervious catchment, nearly all 30 raingardens fall well below 2% even at the lower 236 m²/lot figure (most 1.0-1.4%; RG27 0.6%). Non-compliance worsens at 375-450 m²/lot. NRP-PC1 Policy P.P13 requires treatment to receive at least 85% of mean annual runoff volume and achieve Cu and Zn load reduction factors equivalent to a raingarden (90%, Schedule 28).	s53 comments paras 39(b), 51; App 2 paras 20-21	The raingardens have been designed using a site-specific treatment methodology rather than the Guide's simplified 2% sizing relationship. The attached technical memorandum sets out the design methodology and demonstrates that the proposed devices will achieve the required treatment performance, including treatment of at least 85% of mean annual runoff volume and the required copper and zinc load reductions. It should also be noted that the 2% relationship applies to the **contributing untreated impervious area**, rather than the total imperviousness area. Section 4.3.2.1 of the Guide states: *"Bioretention devices must be sized based on a relationship of the filter media area being 2% of the contributing untreated impervious area"* A supporting memo is attached with a detailed analysis on the sizing.
Issue 1: Stormwater	**SMP raingarden table inconsistent with the design drawings** Contributing lot counts, raingarden labelling and catchment areas in the SMP raingarden table do not align with the drawings; individual discrepancies are listed in App 2 Table 1. RG-03 (175 m², serving Road 10, Joal C and Joal D) cannot be located on any drawing and an area along Road 10 appears not to drain to any raingarden. Revised plans with labelled contours and device labels, plus a catchment plan per device, are sought.	App 2 paras 11, 20(b), 21	The SMP will be amended to correct any inconsistencies with raingarden numbering. Detailed raingarden catchment plans will be provided at detailed design for each relevant raingarden; these catchments may change slightly as detailed design progresses, with any resulting raingarden changes reflected at that stage. Road 10, JOAL C and JOAL D are serviced by roadside proprietary devices rather than a standard raingarden, due to topographical constraints along those roads. Device labels are already within the detailed drainage plans, Contour can be added to the drainage plans.

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Issue 1: Stormwater	**No treatment device for the commercial centre** No raingarden or alternative treatment device is shown for the 1.3 ha commercial centre.	App 2 para 22	The commercial allotment will be designed at the source and be incorporated into the design as it progresses
Issue 1: Stormwater	**Purpose of the raingarden storage layer unclear** Drawing 4900 shows a 450 mm storage layer below the drainage layer and subsoil pipe, contained by an impermeable HDPE liner. Clarification is sought as to its purpose unless it is intended for retention by infiltration to ground.	App 2 para 23	This 450 mm layer forms part of the drainage layer. As the raingardens are lined, it can be reduced to a minimum of 200 mm. We'll detail individual raingardens at detailed design stage.
Issue 1: Stormwater	**Extended detention and peak flow attenuation not distinguished** SMP sections 6.7 and 6.8 state the wetlands provide retention, extended detention and peak flow attenuation, but no drawings or details show orifice or live storage configurations for extended detention as distinct from peak flow attenuation, and there is no clear demarcation between the two functions.	App 2 para 26	The retention wetlands are detailed on the 4300 series drawings, showing permanent and event water levels, drainage inverts, sizes and slopes. Live storage is shown via the perched outlets on each pond, which maintain a permanent water level. The permanent water level provides the retention and extended detention function; storage above that level provides peak flow attenuation
Issue 1: Stormwater	**Unmanaged point source discharges** Parts of the network bypass contaminant treatment and/or the attenuation wetlands. Some discharge points sit directly adjacent to private property outside the project area - the Muri Block, 434 State Highway 59 and the Scaife Block. This is contrary to the SMP, which is based on all primary network discharges being captured by the treatment train, and the effects have not been assessed.	s53 comments paras 39(d), 55; App 2 para 13	The SMP will be updated to reflect the minor discharge points that aren't captured by the retention wetlands. These outlets are required to maintain flows, and have been assessed as having less than minor effects on the receiving environment
Issue 1: Stormwater	**Inlet velocities, sediment re-suspension and scour** All flows discharge to the attenuation wetlands, which may re-suspend sediment and associated contaminants if velocities are not managed, particularly in large events. How discharges into the devices will be managed to control velocity and prevent erosion and scour is not addressed.	App 2 para 14	Maintenance access has been designed for all raingardens and to the retention wetlands, in accordance with Tiaki Wai's guidance, we've increased this from 3m to 4m wide. Scour and erosion protection will be designed at detailed design, in accordance with the SMP
Issue 1: Stormwater	**No sediment forebays** Sediment forebays or extraction zones are not provided to any stormwater management device. They are sought to facilitate maintenance and reduce the risk of contaminant release and disturbance to planting during cleaning.	App 2 para 15	Sediment is managed within the raingardens prior to discharge, which have been designed with maintenance access. Outlets downstream of the raingardens are not expected to carry sediment, so forebays aren't required there

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Issue 1: Stormwater	**Maintenance access to devices** Raingardens and wetlands are in space-constrained and in places steep locations with little room for safe access. Device design must allow for safe maintenance access and operations, including 3 m vehicle access with associated turning areas, and stockpiling and loading zones.	App 2 para 12; s53 comments para 61(a)(iv)	Maintenance access has been designed for all raingardens and to the retention wetlands, in accordance with Tiaki Wai's guidance, we've increased this from 3m to 4m wide. There's no requirement or reason to provide a stockpiling and loading zone adjacent to the raingardens/retention wetlands. A 4m width is suitably spaced for a digger (which doesn't need a turning area) and for a truck to back up and be filled.
Issue 1: Stormwater	**No Operation and Maintenance Plan** No O&M Plan was provided. A draft is sought covering inspection and maintenance frequencies, preventative and periodic tasks, and ownership and maintenance responsibilities. Maintenance is to be carried by the development for 5 years after construction before any handover to Tiaki Wai.	App 2 para 16	This will be provided as set out in the SMP, and we expect it to be a condition of consent, with certification required prior to section 224(c) *This will be provided as set out in the SMP, and we expect it to be a condition of consent, with certification required prior to section 224(c). We don't believe a draft O&M Plan is necessary at this time, it should follow once detailed design is approved*
Issue 1: Stormwater	**SH59 stormwater discharges untreated** Beyond limited swale treatment, the majority of new and redeveloped impervious surfaces associated with the SH59 works appear to discharge through sumps directly to the Taupō Stream with no contaminant treatment or volume mitigation. The issues raised for the site therefore apply equally to SH59.	s53 comments para 59	See Section 6.11 of the SMP. The proposed approach was developed in consultation with NZTA. *Roadside swales will provide first-flush treatment and contaminant removal for approximately 2,660m² of new impervious surface. This represents the best practicable option within the constrained highway corridor, as standalone roadside raingardens are not preferred by NZTA and would be operationally difficult to maintain.* This section of SH59 currently has no stormwater treatment. The proposal introduces treatment for the additional impervious area created by the works, together with a portion of the existing highway catchment. The effects of the increased impervious area have therefore been appropriately mitigated using the best practicable treatment option.
Issue 1: Stormwater	**Amended SMP and network design sought as the best practicable option** An amended SMP and network design is sought, demonstrated to be the best practicable option (s105(1)(c) RMA), that incorporates WSUD and source control, provides an adequately sized treatment train with hydrological	s53 comments paras 60-61	The stormwater network design represents the best practicable option available for the site's constraints, based on the modelling and technical assessment carried out to date. The SMP will be amended to correct the matters and

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	control, avoids unmanaged point source discharges, can reasonably be maintained, mitigates quantity and quality effects on adjacent properties and receiving environments, addresses PCC and Te Rūnanga o Toa Rangatira matters, and is acceptable to Tiaki Wai and NZTA. Consequential amendments may be required to earthworks, culvert design and placement, works in streams and wetlands, and the arrangement of drainage reserves and allotments.		inconsistencies raised above. We don't consider a further network redesign is needed; the consequential matters raised (earthworks, culvert design and placement, works in streams and wetlands, drainage reserve and allotment arrangement) are already being addressed through the specific items above, rather than needing a separate exercise
Issue 2: Retention wetlands	**Hydrological control not demonstrated** It is not clear the wetlands achieve any meaningful hydrological control through retention or extended detention. Wetlands are not suited to a retention function (internal storage below a drainage layer promoting infiltration to sustain baseflows); retention suits raingardens or infiltration devices. The design does not demonstrate how extended detention will be achieved.	s53 comments para 64(a); App 2 para 26	Retention through infiltration is not suitable for this site. Site investigations have identified insufficient infiltration capacity for standalone infiltration devices or infiltration-based raingardens, and geotechnical constraints further limit the use of these systems. The proposed retention wetlands therefore provide hydrological control which has been supported by detailed modelling.
Issue 2: Retention wetlands	**Permanent water too deep to establish wetland vegetation** Permanent water depths under baseflow are 2.2 m (A), 1.4 m (B), 2.5 m (C) and 2.4 m (E), from bunds 4.3-7.8 m high. Approximately 20-30% of the offset area in A, B and C, and approximately 11% in E, would be deeper than 0.5 m, where establishing permanent aquatic plants is challenging and open water may persist. A further zone fluctuating between 0.5 m and 1 m would be possible but challenging to plant. The design is to be reviewed to reduce depths, maximise plant establishment in permanent water, and re-calculate the wetland habitat area relied on for remediation and offsetting.	s53 comments para 64(c); App 3 paras 23, 27-31; App 5 paras 20-21, 32	The wetland design has been revised to better flatten the wetland bottoms. The original design was based on existing contours, with only isolated areas at these depths. Minor earthworks will move material to fill the deeper areas and deepen the shallower ones, balancing the change so no net volume is lost, with the retention wetlands graded out prior to planting
Issue 2: Retention wetlands	**Maintenance requirements understated** Maintenance is limited in the updated SMP to access to inlet and outlet structures, debris and sediment clearance there, and 80% vegetation cover. Additional requirements are likely: vegetation clearance around outlets; sediment from erosion and scour at outlets in gully heads above the wetlands; sediment and urban contaminants from undersized treatment and bypass	s53 comments para 64(g); App 3 para 17; App 5 paras 28-30	Vehicle access has been provided to the key stormwater devices where it's genuinely required for ongoing maintenance. Smaller outlets in gully heads — which don't accumulate sediment and need minimal intervention — sit within constrained, steep, ecologically sensitive terrain where a 4 m vehicle corridor isn't practicable and won't be provided. Access has been set based on actual maintenance need at each location, not a blanket standard applied regardless of context

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	events; and sediment in Wetland E from the Muri Block and ongoing rural land use. The wetland drawings do not identify inlet structures or sediment forebays where such maintenance would occur, and constrained gully settings may limit practical access.		
Issue 2: Retention wetlands	**Purpose of Wetland D** It is unclear why a permanent water level is maintained in Wetland D rather than designing it as a dry attenuation basin. If it is to be planted and treated as a constructed wetland for secondary treatment and attenuation, greater stormwater design consideration and likely maintenance is required.	App 3 para 19 (footnote 1)	This has been proposed with a permanent water level and wetland planting, to provide a limited retention function as the best practicable option given the site constraints. It will be maintained in the same way as the other retention wetlands, in accordance with the SMP.
Issue 11: Culvert design feasibility	**Culvert design information is conceptual only** Information on the 11 proposed culverts is conceptual - size, shape and gradient, and a typical outlet detail. There is no typical detail for culvert inlets.	s53 comments para 200	We've added typical details and detailed calculations to the SMP, Appendix 2 (within Minute 3), covering sizes, shapes, grades, flows, velocities and general notes.
Issue 11: Culvert design feasibility	**Feasibility concerns for specific culverts** Feasibility concerns are raised for Culverts 32, 33, 34, 35, 36, 37, 38 and 40, covering wingwall spacing and angle, culvert length and alignment affecting maintenance access and blockage risk, outlet velocities and scour, effects on the drainage of Retention Wetland B, potential overtopping of the existing DN750, and overall arrangement complexity where discharges pass through the working farm area. Each concern and its recommendation is set out individually in the companion schedule for Appendix 6 Table 1.	s53 comments paras 195, 201, 205(a); App 6 para 4 / Table 1	We've added typical details and detailed calculations to the SMP, Appendix 2 (within Minute 3), covering sizes, shapes, grades, flows, velocities and general notes. We also added completed responses to Appendix 6 Table 1 for further information.
Issue 11: Culvert design feasibility	**Detailed design to be demonstrated** Detailed design is to demonstrate that: each culvert does not increase flood depth, velocity or hazard compared with the site flood assessment; each inlet and outlet is protected against erosion and scour; each culvert avoids aggradation, erosion and scour of the bed including at inlet and outlet; each culvert avoids causing or increasing flooding on any neighbouring property; and each culvert avoids blockage by debris or other geomorphic processes. These apply in addition to fish passage requirements.	s53 comments paras 203-204; App 6 paras 5-6	No issues with the proposed detailed design conditions. The flood-related elements, depth, velocity, hazard and effects on neighbouring properties, including a blockage scenario, have already been covered by the flood risk assessment

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Issue 12: Management plan approach for earthworks	**Management plan structure to be restructured** The DECMP requires a Detailed ESCP per stage, a Flocculation Management Plan, a Stream Works Management Plan and a Stream Diversion Plan. The proposed conditions require a different set - Stage Specific Earthworks and Construction Management Plan, Stage Specific ESCP, Stage Specific Chemical Treatment Management Plan and Streamworks Construction Management Plan. The purpose and structure is unclear and the flat hierarchy provides no site-wide approach to guide staging. The structure sought is a project-wide Earthworks Construction Management Plan setting out ESC principles, monitoring and reporting, above a Chemical Treatment Management Plan, a Streamworks Construction Management Plan, and Stage Specific ESCPs certified before each stage.	s53 comments paras 213, 215-219, 221; App 7 paras 5-8	We agree with the proposed structure. Before earthworks commence within each stage, the following will be prepared and submitted for certification: • a Stage-Specific Earthworks and Construction Management Plan, prepared in accordance with the project-wide ECMP; • a Stage-Specific Erosion and Sediment Control Plan; • a Flocculation Management Plan or Chemical Treatment Management Plan, where chemical treatment is required; and • a Streamworks Construction Management Plan, where streamworks are proposed. The DECMP will be updated to reflect this structure.
Issue 12: Management plan approach for earthworks	**Draft Stage 1 ESCP not consistent with the ESC Guide** The draft ESCP for Stage 1 does not comply with the GWRC Erosion and Sediment Control Guide or provide adequate detail. The example given is T-bar decants and primary spillways for sediment retention ponds shown centrally within the pond rather than at the end, which would not allow sediment-laden water adequate time to settle before discharge. A reconsidered Stage 1 SSESCP prepared in accordance with the Guide is sought.	s53 comments para 220; App 7 paras 9-12	Detailed ESCPs will be further developed and submitted for certification prior to the commencement of each stage of works. These will be prepared in accordance with the Wellington Region Erosion and Sediment Control Guide. Minor matters, including the location of T-bar decants and primary spillways, can be addressed through the detailed design and certification process.
Issue 13: Water quality monitoring and discharge quality	**No discharge quality trigger at the device outlet** Triggers are proposed for sediment treatment devices but none at the outlet of the device. Measuring at the outlet is a pragmatic way of measuring device performance so a poorly performing device can be identified and managed. A trigger of 170 NTU at the device outlet is proposed, consistent with triggers for sediment treatment devices on earthworks sites across the region.	s53 comments paras 224(a), 228(a); App 7 paras 13-16	This can be accepted. Monitoring only applies when the device is actively discharging and following the specified trigger rainfall events;
Issue 13: Water quality monitoring and discharge quality	**Monitoring locations not identified** Upstream and downstream monitoring locations are to be clearly identified on a plan in the erosion and sediment control plans, and be accessible on site.	s53 comments para 224(b); App 7 para 17	Monitoring locations are identified in Section 11 of the DECMP. Turbidity will be continuously monitored at the three downstream monitoring locations, SW01, SW02 and SW03, for the duration of the works. These locations are further detailed in the PDP Water Quality Assessment.

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Issue 14: Implementation of earthworks mitigation	**How buffer zones around wetlands and streams will be implemented** Buffer zones around wetlands and streams are a key mitigation measure in the DECMP, but how setbacks have been considered or will be implemented is not explained. This matters particularly where earthworks cut across existing streams and natural inland wetlands and a setback is not possible, which occurs frequently across the development.	s53 comments paras 231-232, 238(a); App 7 paras 23-24	This will be detailed within the stage-specific controls, developed jointly with the project ecologist for the specific catchment works is proposed.
Issue 14: Implementation of earthworks mitigation	**How sediment controls upstream of wetlands will be implemented** Locating sediment controls upstream of wetlands to prevent sediment ingress is a key mitigation measure, but how it will be implemented is not explained, particularly where works are adjacent to or cut across natural inland wetlands.	s53 comments paras 231, 238(b); App 7 paras 23-24	This will be detailed within the stage-specific controls, developed jointly with the project ecologist for the specific catchment works is proposed.
Issue 14: Implementation of earthworks mitigation	**Processes to be developed with the ecologist not specified** The DECMP states that earthworks within or near ecologically sensitive areas will be managed using processes developed jointly with the ecologist, without stating what those processes are. Parameters need to be established and incorporated into the ECMP and subsequent SSESCPs.	s53 comments para 232; App 7 para 24	This will be detailed within the stage-specific controls, developed jointly with the project ecologist for the specific catchment works is proposed.
Issue 14: Implementation of earthworks mitigation	**Stage sizing errors in DECMP Table 1** Table 1 gives a total earthworks area of 81.46 ha but the individual areas sum to 96.2 ha. The area attributed to Stage 2 is also likely in error: Stage 2C (SH59 intersection works) is attributed 15.9 ha but measures closer to 1.6 ha, giving a Stage 2 total of 14.5 ha. This is to be corrected.	s53 comments paras 234, 238(c); App 7 para 26	Agreed. Stage 2C's area had a decimal place error (should read 1.6 ha, not 15.9 ha). The DECMP will be updated to reflect these changes
Issue 14: Implementation of earthworks mitigation	**Limiting exposed area through staging** Staging limits exposed area and therefore sediment generation, yield and transport off site, and reduces the risk of large-scale one-off erosion events. Conditions are sought limiting the maximum exposed area to the areas attributed to each stage in the Application (subject to correcting the Stage 2 error), and requiring that no more than one stage is undertaken at any one time.	s53 comments paras 233-235, 239(a)-(b); App 7 paras 25-27	The undertaking of multiple stages concurrently should not be precluded where sufficient resources are available. Each stage will be managed as a separate work area in accordance with the ECMP, with stage-specific erosion and sediment controls, methodologies and exposed-area limits.
Issue 14: Implementation of earthworks mitigation	**Progressive stabilisation** The DECMP describes limited stabilisation techniques and provides for stabilisation as soon as reasonable on completion of works. Stabilisation must instead occur progressively throughout the project, using a range of	s53 comments paras 236, 238(d)-(e), 239(c); App 7 paras 28-30	Progressive stabilisation will be carried out throughout the works, using a range of techniques in accordance with the ESC Guide for the Wellington Region.

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	techniques suited to time of year, climatic conditions and soil types, with no technique excluded.		
Issue 14: Implementation of earthworks mitigation	**Geotechnical Investigation recommendations not carried into the DECMP** Recommendations in the Geotechnical Investigation on stabilisation and surface water management to reduce erosion are not reflected in the DECMP. They include directing overland flow away from existing slopes to reduce ponding and erosion, and mitigation for fills greater than 3 m in height to control runoff and scouring - benching, geogrid subject to engineering design, a site-specific hydroseeding plan, and bunds at the top of batters.	s53 comments paras 237, 238(f); App 7 para 31	The DECMP will be updated to reflect geotechnical recommendations.