

NZTA acknowledges and appreciates the statements made by Canterbury Regional Council (CRC) that are supportive of, and align with, NZTA's proposed approach on a range of matters, the majority of which are not specifically addressed in this response table. In particular, NZTA notes that CRC:

- Acknowledges the substantial consultation undertaken by NZTA with CRC.
- Considers that the Project is generally consistent with key statutory documents, including the Canterbury Regional Policy Statement (CRPS), Canterbury Land and Water Regional Plan (LWRP), and Canterbury Air Regional Plan (CARP), as well as the National Environmental Standards for Freshwater (NES F).
- Identifies that the benefits of the Project are not being questioned, and accordingly a peer review of the Economic Benefits Assessment was not undertaken by CRC.
- Is in broad agreement across a range of technical disciplines (particularly air quality, contaminated land, groundwater, surface water resources, river engineering and water ecology) and is also supportive of the proposed stream offset measures, with areas of disagreement relating to the certification and deemed-certification of management plans, soil reuse criteria and remediation thresholds, ecology (in relation to habitat values, other offset requirements and the need for further surveys), stormwater (including water quality and quantity outcomes and flood modelling), and the scope and robustness of the proposed consent conditions.
- Considers that outstanding matters can be resolved through conditions or further engagement.

Attachment 3 - NZTA response to comments from Environment Canterbury in relation to State Highway 1 North Canterbury – Woodend Bypass Project (Belfast to Pegasus)					
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Commenter 2 – Environment Canterbury					
1 May 2026	S53 report, para 10	2.1	Scope	Through on-going consultation CRC has been provided with other information outside the formally lodged application, including additional material relating to the proposed modification of the infilling methodology for the Southern Remnant Quarry Lake (received 23 March 2026) and stormwater management (received 10 April 2026). CRC acknowledges and, where relevant, references this information in its commentary, it emphasises that its assessment is grounded in the documentation as lodged with the Substantive Application, rather than that additional information. CRC's assessment of terrestrial ecology is focused on areas within 10 metres of waterbodies, however, where relevant, CRC identifies instances where consideration of these matters in the broader context of the Project may assist the Panel	NZTA notes that this information was requested by CRC and provided to assist CRC with its evaluation of the application. NZTA acknowledges CRC's reference to this information and its use by CRC, where relevant, in its evaluation of the application. NZTA acknowledges CRC's remit for indigenous biodiversity and terrestrial ecology is the area within 10 m of a waterbody.
1 May 2026	S53 report, paras 23, 29-34; Appendix 2 – Tech Advice Compliance paras 5, 7, 9	2.2	Certification of management plans	The Panel requested CRC's view on an appropriate timeframe should deemed certification be retained. While CRC maintains its opposition to deemed certification, it considers that, for an application of this scale and complexity, a timeframe of 40 working days would be appropriate. This timeframe would enable the assigned compliance officer to obtain and incorporate input from relevant technical specialists in the review of the seven management plans requiring certification, without the need for external technical advice, which may impose additional cost implications for either CRC or the applicant. Notwithstanding the provision of an indicative timeframe, CRC maintains its strong opposition to the inclusion of deemed certification within the regional resource consent conditions for management plans.	NZTA seeks deemed certification across all management plan conditions for consistency, and to better facilitate the efficient delivery of the Project. Updated condition wording is proposed to clarify that deemed certification will not occur if the relevant agency communicates to NZTA within the 30 working day timeframe, that the management plan is not suitable to certify. Deemed certification is only proposed in the event there is no communication from the certifying agency within 30 working days.
1 May 2026	S53 report, para 23-35	2.3	Alternate approach to deemed certification	Alternatively, CRC proposes an alternative approach to the certification of management plans whereby the Applicant nominates a Suitably Qualified and Experienced Person (SQEP) to certify the management plan, subject to CRC approval of the nominated SQEP. This approach would remove reliance on CRC certification timeframes and place responsibility for meeting certification timeframes with the Applicant. CRC has not, at this stage, drafted a condition to give effect to this approach but could do so should the Panel prefer this option.	While no alternative wording has been provided by CRC, NZTA will not accept this approach. Regardless of any evaluations of management plans completed by an independent expert, in discharging its responsibilities for certifying the plans, CRC will need to complete its own reviews to satisfy itself that the plans comply with Conditions. The CRC proposal will introduce an additional review step into the certification process and will not facilitate NZTA's primary objective of efficiency in delivery of this significant infrastructure project with regional and national benefits.

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1 May 2026	S53 report, para 27	2.4	Incidental groundwater take	CRC notes for the Panel that the proposal includes the passive interception of groundwater via subsoil drainage associated with stormwater infrastructure. This is considered a take under the LWRP, and an annual volume will need to be assigned for each of the groundwater allocation zones intersected by the project. CRC has discussed this matter with the Applicant and understands that the Applicant intends to propose annual volumes. CRC has proposed condition O2.3 to address effects on groundwater quantity, with placeholder volumes pending confirmation by the Applicant.	We have calculated the groundwater incidental take volume to be approximately 42,900 m3/yr from the Cust Groundwater Allocation Zone (GAZ). The incidental groundwater take is from treatment swales (TS) identified as TS03 – TS08 located along the Lineside to Cam section of the road alignment which will intercept shallow groundwater along part of the swale lengths. The Design Team has confirmed that this is the only segment along the alignment where swale inverts (or other drainage) may be situated below groundwater level. The Lineside to Cam section of the alignment is within the Cust GAZ of which there is 16% allocation remaining (approx. 3,220,000 m³). This calculation is based on median groundwater levels recorded at piezometers SP_51 (located nr Lineside/Kaiapoi River) & SP_53 (located at Wilsons Drain) over the monitoring period of August 2025 to April 2026. For these calculations, we have assumed silt lithology (based on borehole logs) and assigned a hydraulic conductivity value consistent with this material. The calculated volume is derived from a conservative assessment due to the following points: - It is assumed that this volume of groundwater intercepted will flow into the receiving drainage points/surface waters. The designers have advised that the swales are designed to allow some of the surface water collected (and thus any groundwater) in the swales to pond. This means that some intercepted groundwater has the potential to infiltrate back into the ground rather than draining to the discharge point. - A groundwater surface along this length of the alignment is based on the measured groundwater levels at two piezometers at towards each end of the alignment. The calculation used in this assessment assumes some upward vertical groundwater will occur into the swale as a result of the groundwater interception.
1 May 2026	S53 report, para 28	2.5	Management Plans	“The Applicant has not provided draft management plans as part of the FTAA process, with the intention that these plans will instead be developed and approved through the compliance framework should approval be granted. While CRC’s preference is for draft management plans to be provided and assessed as part of the substantive application, which is consistent with Fast-Track Approvals Act 2024: Panel Conveners’ Practice and Procedure Guidance (22 July 2025), CRC acknowledges that this approach is at the discretion of the Applicant, and then up to the Panel as to how it manages that approach. Accordingly, CRC’s assessment proceeds on the basis that such plans may not be available at the time of decision-making. Where there are no draft management plans available, CRC considers it particularly important that key environmental outcomes and performance standards are clearly specified and secured through enforceable consent conditions, rather than deferred to subsequent management plan approvals. Appendix 11 sets out CRC’s proposed amendments to the conditions lodged as part of the Substantive Application, including the incorporation of trigger levels, monitoring requirements, and reporting obligations to ensure that the intended environmental outcomes are achieved. In particular, CRC considers that the proposed conditions in Appendix 11 now secure the environmental outcomes associated with the Contaminated Soils Management Plan and the Construction Air Quality Management Plan. However, further work is required to	Draft management plans are being progressed in parallel with, but outside of the FTAA process. This approach has the following benefits: - It allows the Panel to have input into the conditions which will require the management plans; - It has allowed the Project to move at speed, as work on developing management plans has occurred after the FTAA application was lodged; - It allows the contractor appointed to construct the Project to develop construction methodologies and refine the design, rather than these being dictated by pre-existing management plans. Management plans which do not reserve flexibility for contractor innovation significantly increase project costs. NZTA’s preference is that contractors develop the management plans after they have been appointed. NZTA agrees that this approach places more importance on key outcomes and performance standards being set out in the resource consent conditions, so the scope of Council’s certification role is clear. NZTA has suggested changes to management plan conditions to improve their certainty. In some instances, NZTA also agrees that outcomes can be provided in the conditions themselves (rather than in management plans), but this will depend on whether an adaptive

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				ensure that the environmental outcomes associated with the Ecological Management Plan and the Groundwater Management Plan are appropriately secured.”	approach is necessary. The revised conditions provided with this Section 55 response have been prepared after considering the amendments suggested by CRC. For completeness, the Lizard Management Plan and Archaeological and Cultural Sites Management Plans are less reliant on contractor decisions and so have progressed more quickly than the management plans to be provided pursuant to the CRC consent conditions.
1 May 2026	S53 report Table 2	2.6	Air Quality – Assessment and Compliance Threshold for Dust Effects	CRC considers that the adverse dust effect should be mitigated so as to not cause a nuisance.	CRC’s consideration that “that the adverse dust effect should be mitigated so as to not cause a nuisance” is inconsistent with CRC’s own CARP provisions, which instead set out an intent to avoid offensive or objectionable effects in the environment. Specifically in relation to the Project, the discharges from <i>land development activities</i> and <i>unsealed surfaces</i> must meet Condition 3 of Rule 7.32 to be considered a permitted activity, which requires that these discharges do not <i>cause an offensive or objectionable effect beyond the boundary of the property of origin, when assessed in accordance with Schedule 2</i>. The application for resource consent for the discharges to air from <i>outdoor storage of bulk solid materials</i>, is to be considered against Objective 5.9 and Policy 6.8, which consider that offensive or objectionable effects are unacceptable and are to be generally avoided.
1 May 2026	S53 report Table 2	2.7	Air Quality – Submission of a draft Construction Air Quality Management Plan with application	CRC acknowledges that the CAQMP applies only to stockpiles as required by the consent, and recommendations for additional provisions are set out in the paragraph below. However, CRC considers that the Applicant should provide further information in the form of a Dust Management Plan to demonstrate compliance with permitted activity Rule 7.32 of the Canterbury Air Regional Plan (CARP). This information will enable CRC to fully understand how dust discharges are proposed to be managed across the site and to confirm that all relevant activities can comply with the permitted activity standards.	The Dust Management Plan required for the discharges to air from <i>land development activities</i> and <i>unsealed surfaces</i> must meet Condition 1 of Rule 7.32 of the CARP. Under this condition, the Dust Management Plan is only required to be prepared for implementation in advance of the discharges occurring and there is no requirement under Rule 7.32 for it to be submitted to CRC in advance of its implementation. NZTA proposes that a CAQMP be prepared for the Project by the construction contractor once the contractor is engaged. In relation to the discharges to air from <i>land development activities</i> and <i>unsealed surfaces</i> NZTA proposes that this CAQMP will incorporate the dust management recommendations set out in section 6.4 of the Construction Air Quality Assessment (CAQA) as well as the requirements for Dust Management Plans under Schedule 2 of the CARP (the latter in accordance with Condition 1 of Rule 7.32). In relation to discharges to air from <i>outdoor storage of bulk solid materials</i> (which require resource consent), the CAQMP will be prepared in accordance with MP.9 (which incorporates the dust management recommendations set out in section 6.4 of the CAQA) and the other relevant resource consent conditions. Measures for mitigating and monitoring construction dust emissions from the Project and their environmental effects were evaluated against construction air quality assessment guidance published by the Institute of Air Quality Management (IAQM) in Appendix C of the CAQA. Recommendations for key dust mitigation and monitoring measures from this evaluation have been outlined in section 6.4 of the CAQA to be incorporated into the CAQMP once it is prepared. Provision of a draft CAQMP may provide further detail of dust management measures set out in section 6.4 of the CAQA. However, this additional detail is unlikely to influence whether offensive or objectionable effects beyond the Project Site boundary are likely to occur. Therefore, NZTA considers that the information on mitigation measures and monitoring provided in CAQA is sufficient to understand whether Condition 1 of Rule 7.32 will be complied with.

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1 May 2026	S53 report Table 2 Air Quality Appendix 1 Tech Advice Air Quality Table 2	2.8	Air quality – retention of condition 10 in the Designation	“19. The applicant has requested that Condition 10 of the Designation is removed, and the construction air quality/dust management plan is implemented under the conditions of the regional resource consent. In our opinion, this condition should be retained. The applicant is currently proposing resource consent conditions for the use of the CAQMP to manage the potential dust from the stockpiling activity only. If the applicant proposes to generate a separate dust management plan to address mitigation measures from the land development and unsealed surfaces to ensure it meets permitted activity standards, this dust management plan needs to be certified by the Council in a similar process to the CAQMP being generated for the stockpiling of bulk materials” “20 The applicant has not submitted a draft CAQMP and has indicated that one will be generated 30 days before construction begins. The applicant has recommended a number of industry standard mitigation measures. However, without reviewing a CAQMP it is not possible to determine if these mitigation measures will be implemented sufficiently to confirm the potential dust risks of the project are appropriately managed.” “22. Under the CARP, there is no requirement for the dust management plan to be independently reviewed or certified by the Council. Additionally, if the CAQMP is moved to the resource consent as requested in the application, CAQMP would only need to cover discharges to air from the consented activity (the stockpiling of bulk material) and not that of the whole project. Dust will potentially be generated from a variety of different sources. For a project of the planned scale of the Woodend Bypass Project, we consider it is important that any CAQMP is independently reviewed and certified by Council, as would be required under the existing designation conditions to ensure that appropriate procedures are identified for implementation across the whole project.” “25. A draft CAQMP should be independently reviewed and certified by Council before commencement of the construction works.”	The CAQMP relates to the management of discharges to air that the CRC is responsible for regulating. CRC has set out rules in the CARP to regulate discharges to air in Canterbury. In this context, specification of requirements relating to management of discharges to air (via a CAQMP) within a designation condition regulated by WDC is not appropriate. Such requirements are most appropriately specified by CRC, either via conditions of a rule in the CARP for permitted activities or via consent conditions for activities that aren't permitted. In this instance the bulk of the construction discharges to air (those from <i>land development activities</i> and <i>unsealed surfaces</i>) are permitted under Rule 7.32, which specifies requirements for preparation and implementation of a dust management plan. Only the discharges to air from <i>outdoor storage of bulk solid materials</i> require resource consent and only in relation to these discharges could CAQMP requirements (separate to those specified under Rule 7.32) be specified. While the CRC Technical Advice - Air Quality expresses a desire for imposition of a requirement for a CAQMP to encompass all of the construction discharges to air and for this CAQMP to be subject to a certification process, this is only provided for under the CARP for discharges to air from <i>outdoor storage of bulk solid materials</i>. The dust management plan required for discharges to air from <i>land development activities</i> and <i>unsealed surfaces</i> under Condition 1 of Rule 7.32 of the CARP is not required to be certified by CRC under this condition prior to implementation.
1 May 2026	S53 report Table 2 Air Quality Appendix 1 Tech Advice Air Quality Table 2	2.9	Air quality – dust generation from Construction Support Areas	“The applicant has not stated if these CSAs will be sealed surfaces and the number of vehicles expected to move through these areas. The set up of these CSAs, if they are not to be sealed, could be a large source of potential dust and appropriate dust mitigation measures should be included in the CAQMP”	The Construction Method Statement lodged with the application notes that “CSAs are likely to be established on compacted fill” and the CSAs are therefore unlikely to be sealed. The discharges to air sought to be authorised by resource consent are those specifically associated with outdoor storage of bulk solid materials. This activity is also likely to be the main potential dust emission source at the CSAs. As noted in section 2.6 of the CAQA, this activity has been assumed to potentially occur at any location across the Project Site rather than exclusively at the CSAs and the assessment of dust impacts has been conducted on this basis. Dust emissions from other activities proposed at CSAs are a permitted activity, subject to the conditions of Rule 7.32 of the CARP. These emissions are likely to be minimal relative to emissions associated with storage and handling of bulk solid materials (such as spoil and construction aggregate) at the CSAs. Plant/vehicle movements over unsealed surfaces at the CSAs associated with storage and maintenance of plant/machinery/equipment and car parking could generate dust. However, due to the low frequency and speeds of plant/vehicle movements within the CSAs (e.g. relative to

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					movements on unsealed haul/access roads), the potential for dust emissions from these other CSA activities is very low. The CAQMP required under NZTA's proposed conditions of consent will outline dust mitigation measures for outdoor storage of bulk solid materials, including storage occurring at CSAs. The CAQMP will also be required to address corresponding mitigation measures for activities associated with land development and unsealed surfaces (including those occurring at the CSAs) to comply with the conditions of Rule 7.32 of the CARP.
1 May 2026	S53 report Table 2 Air Quality Appendix 1 Tech Advice Air Quality Table 2	2.10	Air quality - IAQM Dust Risk evaluation	"The IAQM evaluation of the earthworks should have been broken down into zones and the risk should be assessed for each zone. Additional mitigation measures should be put in place for Zones C, D, E and I as identified in Figure 1 and Table 1 of the CMS Report."	Refer to statement of evidence of Jason Pene (paragraphs 5.1-5.10).
1 May 2026	S53 report Table 2 Air Quality Appendix 1 Tech Advice Air Quality Table 2	2.11	Air quality – NZTA Dust Risk Index calculations	"The DRI index value should be recalculated using the appropriate WS and WD factor as set out in the NZTA Guidelines. The subsequent dust risk should be reconsidered based on these updated calculations and any other assessments or suggested mitigation measures made on these risks should be adjusted accordingly and included in the CAQMP."	Refer to statement of evidence of Jason Pene (paragraphs 6.1-6.8).
1 May 2026	S53 report, Appendix 2 -Tech Advice Compliance Table 2	2.16	Management plans and condition wording	The compliance appendix report comments predominantly on the management plan certification process and a series of comments on the wording of the conditions. These are addressed through the comments on the proposed conditions.	Refer to comment 2.2 in relation to management plan certification. In regard to the other comments on conditions in Appendix 2, NZTA has used the CRC Appendix 11 track change conditions as the basis for proposed conditions wording updates as opposed to working through the Appendix 2 technical advice note in detail.
1 May 2026	S53 report, Table 2 Contaminated land Appendix 3 Tech Advice Contaminated land paras 3, 16-34, 39	2.17	Contaminated land – reuse of soil with low level contamination	The Applicant's proposed soil reuse criterion of Class 4 'Leaching to Water' is not sufficiently protective of receptors during both the construction and operational phases. CRC considers that the Class 4 'Adopted' criteria provide a more appropriate and protective standard. More detail is provided in the Technical Advice.	Refer to Statement of evidence of Paul Edward Walker paragraphs 5.6-5.16.
1 May 2026	S53 report, Table 2 Contaminated Land Appendix 3 Tech Advice Contaminated land para 38	2.18	Contaminated land – remediation trigger	The trigger level for the preparation of a Remediation Action Plan (RAP) has not been agreed. Dr Christenson considers that where exceedances of ANZG Guideline Values – High are identified, a RAP should be prepared in addition to the Contaminated Site Management Plan (CSMP). More detail is provided in the Technical Advice.	NZTA proposes that active remediation will occur when contaminants are present at concentrations that could present an unacceptable risk to environmental or human health receptors and will not otherwise be mitigated through construction works. In line with NZ guidance, the need for remediation would be determined by a SQP on the basis of a site-specific risk assessment adopting a site-specific conceptual site model. ECan proposes that remediation should occur wherever contaminant concentrations exceed sediment quality guidelines. Adopting the sediment quality guidelines as a trigger for remediation where surface water is not a key receptor, or where runoff to surface water is not a feasible

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					pathway is not appropriate, not consistent with guidelines and could result in unnecessary remediation. It is also conservative as sediment quality guidelines are applicable to sediment in a water body not soil on land. NZTA does not want remediation activities triggered where the risk to human health or the environment does not warrant it as this could have adverse cost and sustainability outcomes for the Project. NZTA therefore maintains its position that the trigger for remediation be defined by the SQP and in accordance with NZ guidelines on the basis of a robust site specific conceptual site model that is specific to the area under investigation.
1 May 2026	S53 report, Table 2 Contaminated Land	2.19	Contaminated land – protection of environmental receptors during construction	Proposed construction phase conditions, including separation distances from waterways for erosion and sediment control measures and the absence of limits on the extent of concurrent ground disturbance, are not adequately protective of environmental receptors. More detail is provided in the Technical Advice.	With regard to soil reuse refer to Statement of evidence of Paul Edward Walker, paragraphs 5.17-5.19.
1 May 2026	S53 report, Table 2 Contaminated land Appendix 3 Tech Advice Contaminated land paras 5, 42	2.20	Contaminated land – timing of provision of DSI	Table 2 “The provision of Detailed Site Investigations (DSIs) to CRC only following completion of earthworks is not appropriate, as it does not enable sufficient review of the adequacy of the assessment or allow compliance verification of CSMP implementation during works.” More detail is provided in the Technical Advice.	Please refer to comments for condition C1.16 in condition set.
1 May 2026	S53 report Appendix 3 Tech Advice Contaminated land para 9	2.21	Contaminated land - disturbance of asbestos contaminated soils	“Disturbance and any reuse of soils contaminated with asbestos should occur in accordance with all applicable local and national guidelines. I note conditions do not currently reference relevant guidelines, and I consider this would be appropriate and would aid enforcement if it were required.”	NZTA confirms that disturbance of soils containing asbestos will be undertaken in accordance with local and national guidelines.
1 May 2026	S53 report, Table 2 Contaminated Land Appendix 3 Tech Advice Contaminated land paras 35, 46	2.22	Contaminated land - potential for accumulation of contaminants in operational stormwater	In addition to the proposed maintenance schedule for operational stormwater infrastructure, sediment sampling should be undertaken to assess potential contamination. Where contamination is identified, material should be appropriately managed and disposed of in accordance with relevant standards.” “There is potential for sediments that accumulate in the operational stormwater infrastructure to be contaminated with trace elements and organic contaminants. Using clean materials in the infrastructure will best enable capture of contaminants” “Concerns regarding operational phase stormwater contamination monitoring can be addressed through the addition of conditions O3.16-O3.20. This should include requirements for sediment sampling in accordance with the maintenance schedule, with any identified contamination managed and disposed of appropriately. Annual reporting to CRC should also be required. These amendments are reflected in Appendix 11.”	NZTA does not accept CRC’s proposed conditions O3.16–O3.20 relating to operational discharge monitoring. While NZTA acknowledges that sediments accumulating within stormwater infrastructure can contain trace elements and organic contaminants, the conditions as proposed are overly prescriptive and include a level of technical detail that is not appropriate for inclusion as consent conditions. In particular, the conditions prescribe specific monitoring and sampling requirements without regard to actual system performance over time. This level of prescription reduces flexibility and may result in inefficient or impractical monitoring requirements that do not necessarily lead to improved environmental outcomes. As an alternative, NZTA proposes the inclusion of a Stormwater Operation and Maintenance Plan (new condition O3.6A in the 2D Proposed Resource Consent Conditions s55 (O3 – Discharge Permit) document). This approach enables sediment management, monitoring, and disposal requirements to be appropriately developed and implemented based on operational experience,

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					while still ensuring that all relevant matters raised by CRC, including potential contamination and appropriate disposal in accordance with relevant standards, are adequately addressed.
1 May 2026	S53 report, Appendix 3 Tech Advice Contaminated land para 36	2.23	Contaminated land – assessment	In the Ground Contamination Investigation the comparison to ANZG default guideline values did not account for a unit difference for organic compounds, which are listed as micrograms per kilogram in the guidelines, rather than the milligrams per kilogram used for other contaminants (1 microgram per kg = 0.001 mg/kg), and this criteria is exceeded by a factor >100. This risk is likely to be highest with regard to soil runoff in stormwater. The DDT ambient value of 0.431 mg/kg should not be applied for soil or soil reuse near waterways.	The unit error is noted and was already corrected in the updated Ground Contamination Investigation report dated December 2025. NZTA agrees that the DDT ambient value of 0.431 mg/kg may not be appropriate to be applied for soil or for soil reuse near waterways.
1 May 2026	S53 report, Appendix 3 Tech Advice Contaminated land para 37	2.24	Contaminated land – proposed investigations around structures	Appendix H of the Contamination Investigation indicates sampling will be focused in many of the old building footprints. I also recommend explicitly also targeting the building halo for buildings that may have had lead paint application.	NZTA agrees with this comment and this will be incorporated into the sampling plans.
1 May 2026	S53 report Appendix 3 Tech Advice Contaminated land para 44	2.25	Contaminated land / planning	Confirmation that contaminated soil reuse/disposal is appropriately captured in resource consents	C4 is a section 15 construction-phase discharge permit, which provides for the discharge of contaminants to land. Document 2H attached to the Substantive Application presents a detailed assessment of Resource Consent requirements. The C4 Consent is sought under the CLWRP Rule 5.100 as a discretionary activity for discharges not permitted under Rules 5.98 or 5.99. Document 2H notes that this includes, amongst other matters, the reuse of soil containing contaminants above background concentrations. Accordingly, the construction phase discharge permit (C4) provides for the discharge of contaminated soil to land.
1 May 2026	S53 report, paragraph 26 – b, Table 2, Groundwater resources Appendix 4 – Tech Advice Groundwater Resources para 18	2.26	Groundwater – 400 m buffer	CRC requests justification for the use of a 400-metre buffer distance for identifying groundwater receptors.	The 400 m distance was established early on in the project and relates to the designation conditions 80a which stated: “During the detailed design phase of the Project, groundwater use within 400 m of the Project corridor shall be confirmed with a door knock survey to establish the use and depth of abstraction”. This 400 m distance remains applicable because the results of our assessments have identified both temporary & permanent effects on groundwater receptors within 400 m, as either being a negligible or low effect. At distances beyond 400 m from the road alignment, the effects on groundwater receptors such as groundwater users, surface water fed by groundwater and wetlands is expected to be negligible or nil (based on the assessments at closer proximity). The exception to this is ground improvements at William St interchange which are assessed as having moderate temporary effects on groundwater level and flow (e.g. potential for mixing of water from different aquifers and artesian groundwater flow) in the immediate vicinity of the Project. This construction activity has a very localised effect on shallow groundwater flow and the effect on groundwater receptors at distances beyond 400 m would be negligible. Similarly, where potential effects have been identified at some wetlands, this is associated with the earthworks which occur in the immediate vicinity of the wetland(s). The effects at any wetlands located more than 400 m from the Project are expected to be negligible or nil (based on the assessments at closer proximity).

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1 May 2026	S53 report, paragraph 26 – c. Appendix 4 – Tech Advice Groundwater Resources para 19	2.27	Groundwater – electronic files of groundwater modelling	CRC considers necessary that the Applicant provides copies of electronic files for groundwater surface modelling and dewatering assessments to enable the development of an appropriate monitoring programme. Appendix 4 recommends that electronic files from the modelling be provided and reviewed prior to finalizing the Groundwater Monitoring Programme.	NZTA is happy to provide this information in electronic format to ECan outside the FTAA process but considers that the Panel does not require the electronic files in order to make its decision under the FTAA.
1 May 2026	S53 report, paragraph 26 d, Table 2 Groundwater resources S53 report, Appendix 4 – Tech Advice Groundwater Resources para 22	2.28	Groundwater – leaching of contaminants to aquifer	CRC considers it necessary that the Applicant supplies details of mitigation measures to prevent or minimise the leaching of contaminants from the surface environment into underlying aquifers as a result of permanent structures.	Details of the source – pathway – receptor (SPR) are provided in Sections 6.3.1 and 6.3.2 of the Hydrogeological assessment. In Section 8.4.3.2, we describe how there is an incomplete SPR linkage between the surface and the ground improvements (i.e. permanent structures) because most of the ground improvements are beneath the road embankment. On this basis, there is an incomplete SPR linkage for contaminants at the surface to leach and migrate into the aquifer via the permanent structures (i.e. bridges, embankments). Based on the scale of the permanent structures, it is considered that if groundwater mounding were to occur as a result of the inground structures, such as bridge piles, the potential effects are likely to be negligible due to the scale of the structures compared with the large scale size of the local shallow groundwater aquifer. Springs may form as a result of artesian groundwater that can escape to surface from depth. The formation of springs as a result of groundwater mounding from the placement of these structures is very unlikely to occur.
1 May 2026	S53 report, Appendix 4 – Tech Advice Groundwater Resources para 25	2.29	Groundwater -site conditions different to modelling assumptions	If site conditions or timeframes differ/exceed modelling assumptions, it is recommended that additional assessment be conducted to evaluate the potential of additional effects to groundwater.	MP.11 requires the GMP to include inspection and monitoring procedures for groundwater levels and quality before, during, and after excavation works. It also requires the development of a dewatering management procedure, describing how dewatering and related discharge activities will be undertaken and the GMP will require the development of an activity specific dewatering management where modelled conditions are required to be reviewed and compared with the site conditions at the time of excavation.
1 May 2026	S53 report Table 2 Groundwater resources Appendix 4 – Tech Advice Groundwater Resources para 33-39	2.30	Groundwater – management plan	Table 2 “The requirements for the Groundwater Management Plan (GMP), as set out in the proposed conditions, are insufficient to ensure that the desired groundwater resource outcomes are achieved.” Tech Advice note contains various points raised for inclusion in the Groundwater Management Plan “provide data to CRC” “include procedures for incorporating point of discharge management decisions and actions” “provisions for assessing potential impacts to groundwater from discharge areas (swales, basins).”	All Construction Works involving dewatering activities shall be undertaken in accordance with the GMP prepared and certified in accordance with conditions MP.1-MP.5 and MP.11. The GMP will include provisions to provide data to ECan. At each dewatering location, the GMP will require the development of an activity specific dewatering management plan. A template with headings for inclusion in the dewatering management plan will be provided as an appendix to the GMP and this will include details on the management of discharge. It is not appropriate to provide provisions for assessing potential impacts to groundwater from discharge swales and basins in the GMP. These are assessed in the Hydrogeological Assessment in various sections throughout the report under the Hydrogeological effects assessment - Permanent effects of stormwater retention and drainage.

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1 May 2026	S53 report, paragraph 26 – e. Table 2 Land Ecology Appendix 5– Tech Advice Land Ecology para 2a, 4-12	2.31	Terrestrial ecology – habitat value	CRC seeks justification that the proposed enhancement planting is sufficient to address residual adverse effects for the loss of Canterbury grass skink habitat. Table 2 “The Applicant has undervalued habitat for the Canterbury grass skink, noting the species is classified as ‘At Risk – Declining’. This undervaluation has implications for the calculation of compensation required to address residual effects.” “Canterbury grass skink habitat subject to residual adverse effects from project works within 10 metres of waterways should be assigned at least moderate ecological value, reflecting the presence of a species classified as ‘At Risk – Declining’. This is supported by the technical advice of Ms McCombs. While additional skink habitat exists within the wider project area, this falls outside CRC’s jurisdiction and it is for the Panel to determine whether a broader reassessment of habitat values is warranted. CRC emphasises that appropriate habitat valuation is critical to ensuring that compensation is correctly calculated. As the regional condition set, including condition EM.4, enables recalculation of compensation based on the final extent of disturbance, the compensation proposed in the Ecological Offset Plan is not fixed. Accordingly, achieving the outcome of no net loss as per the National Policy Statement for Indigenous Biodiversity 2023 (NPS-IB) will depend on the correct assignment of habitat values through the decision-making process.” Technical Advice note provides further detail.	Similar concerns have been raised by DOC and this has been addressed in the statement of evidence prepared by Dr Jamie MacKay.
1 May 2026	S53 report Table 2 Land Ecology Appendix 5– Tech Advice Land Ecology para 2b, 13-25	2.32	Terrestrial ecology – relocation site for Canterbury grass skinks	“There is uncertainty as to whether the proposed compensation for the loss of lizard habitat, through enhancement planting, will adequately address residual effects.” “Further information is required to confirm that the proposed enhancement planting will adequately address residual adverse effects associated with the loss of Canterbury grass skink habitat. CRC notes that the Barkers Road site, as identified in the Ecological Offset Plan, is proposed for enhancement planting; however, the current habitat density and baseline ecological condition are uncertain. As a result, the extent of enhancement required to increase carrying capacity and address residual effects cannot be confidently determined. While the proposed planting may address the residual effects within CRC’s scope, the Panel must consider the application in its entirety, including land proposed to be incorporated into the designation.” Technical Advice note provides further detail.	Enhancement of the Barkers Road release site is required under the Wildlife Approval conditions (to provide a suitably enhanced release site for Canterbury grass skinks salvaged from the Project area) and is not intended to compensate for the loss of lizard habitat within 10 m of a waterway, wetland, or lake, plus the additional designation area. Habitat enhancement to compensate for residual effects associated with the loss of 0.66 ha of moderate quality lizard habitat within 10 m of a waterway, wetland, or lake, plus the additional designation area, is addressed in the statement of evidence by Dr Jamie MacKay.
1 May 2026	S53 report Table 2 Land Ecology Appendix 5– Tech Advice Land Ecology para 2c, 26-41	2.33	Value of wetland and indigenous vegetation	Table 2 “The Applicant has undervalued wetland remnants and indigenous vegetation. This undervaluation has implications for the proposed offset intended to address residual effects. “ As with compensation, the regional condition set (including condition EM.4) allows for recalculation of offset requirements based on the final extent of disturbance. While CRC supports this adaptive approach, it introduces uncertainty regarding the delivery of the proposed offset identified in the Ecological Offset Plan. Consequently, achieving no net loss will rely on the appropriate assignment of habitat values through the Panel decision.”	The NZTA wetland ecologist addresses the comments from ECan in relation to wetland values in terms of three related steps in the values assessment process, as presented in the EclA: 1) The use of Appendix B Table 1 in relation to wetland habitat values for Threatened/At Risk fauna; 2) The weighting and final determination of overall ecological value of any site using the EIANZ guidance; 3) The thresholds applied for offsetting being required where an area is going to be impacted by a project.

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				Technical Advice note provides further detail.	Items 1) and Item 2) have been responded to in the statement of evidence of Fiona McIntosh (refer to Paragraph 5.15 for Item 1, and Paragraphs 5.11 to 5.20 for Item 2). The evidence should be read in conjunction with the discussion of Item 3 below. Item 3) In accordance with both the NPS-FM and EIANZ guidelines effects management hierarchy, offsetting is considered appropriate when the overall level of impact has been assessed as 'more than minor'. The ecological assessment, as outlined in Section 7 of the EclA for the project, is as follows: "The determination of 'more than minor' under the RMA is an assessment made by a planner rather than an ecologist, where the planner makes an assessment drawing on the technical information presented alongside their own professional judgement... However, for clarity, this EclA broadly follows the EclAG framework. The EclAG identifies that where a moderate or higher overall level of effect remains after efforts to avoid, minimise and remedy effects, then further efforts to address these residual adverse effects in the form of offset and/or compensation should occur so that a no net loss of biodiversity value is realised." The above is consistent with the direction to apply the effects management hierarchy in NPS-FM. Being of Moderate overall ecological value, all of the wetlands assessed as being impacted by the Project (High or Very High degree of Magnitude) result in a Moderate or High overall level of effect. The Project ecologists consider this level of effect to meet the threshold where offset and/or compensation is required because no avoidance, remediation, or mitigation is able to be undertaken. As per Table 10, page 84 of the EIANZ guidance, changing the overall ecological value to High would not make any difference to the conclusion on whether offset is required or not. The second part of this assessment relates to the area of offset required to achieve no net loss or a net gain. When undertaking Biodiversity Offsetting and Accounting Model (BOAM) calculations, the ecological value conclusion for a site has no influence on the area required for offsetting to achieve no net loss or a net gain. More targeted, quantitative characterisation of a site is undertaken to determine offset area. For the impacted wetlands within the project area, these quantitative values were related to habitat structure (measures for number of emergent trees, canopy height, canopy cover %, tree basal area, groundcover height, and groundcover %), native plant species diversity, and enumeration of habitat type provision for fauna habitat. All of the metrics included in the BOAMs for the Project are key ecological habitat type values that are measurable, are able to be recreated, and which contribute to the more qualitative assessments made in relation to wetland value. Therefore although the assessed ecological value (as per the EIANZ) per se is not included within the model, the values of each metric inputted are reflective of that relative value. While a net gain is preferable from an ecological perspective, particularly in an area where little wetland habitat remains, the national guidance under the NPS-FM is to achieve no net loss <u>or</u> a net gain. Therefore, achieving net gain is not essential, irrespective of starting habitat type value.

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					Overall, the Project ecologists consider that the assessment of both ecological values and residual levels of effects undertaken within the EclA still stands for known wetland habitat and biodiversity values and is appropriate for the wetland habitat types impacted by the Project.
1 May 2026	S53 report, paragraph 26 – f. Table 2 Land Ecology Appendix 5– Tech Advice Land Ecology para 2d, 42-55	2.34	Wetland offset – type of vegetation	CRC considers further information is necessary on the “detailed design for the proposed modifications to the Quarry Lake offset plan, demonstrating that the revised proposal appropriately represents wetland habitat where residual adverse effects remain.” “considers that a more detailed design of the modified Quarry Lakes offset plan is required to demonstrate that the proposed offset will adequately represent the habitat subject to residual adverse effects, including ensuring that it supports comparable ecological characteristics and the same or similar taxa.” Technical Advice note provides further detail.	The EMP, which contains more details on the vegetation and habitat types, as well as the quantum of each type to be created will be provided to CRC in May 2026 for its input. However, in response to the points raised, the NZTA ecologists note the following. 1. In relation to paragraphs 44-45, 48, 51-53 of the technical advice notes. We appreciate that it is difficult to picture what the proposed offset wetland will look like without detailed plans. However, to clarify, the proposal is not to have one very large area of open water surrounded by narrow bands of sedges or other wetland species as suggested. We agree that a wetland with those characteristics would not result in habitat approximating what has been lost. The proposal for the offset site involves a non-linear area of wetland habitat, with varying substrate levels and water depths that will allow a contiguous, medium-sized mosaic of five different vegetation types (raupō reedland. harakeke and tī kōuka flaxland, kāpūngāwhā sedgeland, <i>Juncus pallidus</i> rushland, <i>Carex virgata</i> / <i>Carex secta</i> sedgeland) to be established and further develop over time. The proposal being that, as the wetland matures over time (post-establishment) the size of each established vegetation type can expand and contract naturally so that a natural system suitable to the site location develops and persists over time. 2. As discussed with CRC during expert meetings following submission of the substantive application, we do not consider it ecologically appropriate to re-create the vegetation and habitat types lost through the Project works. This is because the wetland habitats to be lost are dominated by exotic pest plant species (primarily willows) with lower proportions (and consequently lower areal extent) of native species diversity in the understorey and groundcover tiers. Consequently, the focus of the proposed offsetting is to: - Create a wetland system that contains habitats with similar water fluctuation levels (i.e. dominated by facultative wetland species). - Create habitat types that would be reflective of native wetland vegetation that would have been present in the areas affected by the Project if they were not invaded by willows. - Ensure the proposed offset wetland would be dominated by native wetland species and therefore be an improvement in native biodiversity compared with the current wetland character at the impact sites. - Contain sufficient structural complexity that it mimics the structural tiers lost, and therefore habitat provision values lost, from the impacted sites. This approach is outlined in Appendix G of the EclA. Whilst it is correct to point out that the proposed offset is not an exact like-for-like offset, the ecologists consider that the proposal is a ‘trade up’ in indigenous biodiversity values and is therefore appropriate. Further information is provided below.

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					<u>Habitat types.</u> When determining which habitat types were suitable for recreating in the offset wetland the ecologists considered both the kind of substrate that will be available for plant establishment (free draining with a thin layer of topsoil) and the wetland types lost through the Project. All of the wetland areas to be lost comprise riparian margin habitat subject to seasonally fluctuating water levels in response to rainfall. Relevant literature that included lists of plant species for wetlands within the Kaiapoi and Ravenswood wider areas was consulted to determine the kind of habitats naturally present within the area and compared against the substrate type available, to determine which habitats were reasonably able to be recreated. Riparian margin wetland habitat in these areas, in the absence of willows and other pest plants, would be dominated by either native sedgeland species (primarily <i>Carex</i> species) or a combination of cabbage tree, flax, and manuka, with local areas of <i>Carex</i>. These two habitat types are two of the five types proposed for creation within the offset area. <u>Species diversity.</u> Discounting the willow canopy, the main native species cover within each wetland impacted by the Project are <i>Carex</i> species. For the Cam River wetland, this is primarily <i>Carex geminata</i> with lesser proportions of <i>C. virgata</i> and <i>C. maorica</i>. For the Waihora wetlands <i>Carex virgata</i> is the main species. While a range of other native species are present (14 others at Cam River, 15 others at the northern Waihora wetland, 5 at the southern Waihora wetland), these species are present at very low density contributing to the wider biodiversity, but not as key components. The proposed wetland offset site will include multiple areas of <i>Carex</i> dominated sedgeland, and areas of tī kouka, mānuka, and harakeke that include more local patches of <i>Carex</i> beneath the canopy. Primarily the <i>Carex</i> species planted at initial planting stages, will be <i>Carex virgata</i> and/or <i>C. secta</i> as these species tolerate thinner soils and fluctuating water levels and have been demonstrated to successfully establish within constructed wetland habitat. Planting of <i>C. geminata</i> will be undertaken at enrichment planting stages as part of the adaptive restoration response if the hydrological and soil moisture retention conditions are conducive to establishment of this species being successful. These areas of planted sedgeland will exceed the quantum of sedgeland lost through the project. Other wetland vegetation types will also be established to provide a diversity wetland community providing values for a wider range of fauna than the areas lost. Once restoration plantings are established, and fauna move into the site, it is expected that natural seed source (particularly from the neighboring Barker's Road wetland) will establish over time and result in a more natural system that contains areas which approximate the areas lost. Provision will also be made in the adaptive restoration plan for enrichment planting of other native wetland species if, after monitoring of the wetland vegetation during the restoration stages, suitable conditions are present for their successful establishment. <u>Habitat structure.</u> While a variable canopy level dominated by the tī kouka and mānuka is not a direct comparison to the canopy cover, and therefore fauna habitat provision provided by willows, the proposed offset site will also include a terrestrial vegetation buffer that transitions from this damp/seasonally wet scrub habitat type to dryland indigenous forest. This range of habitat types is expected to capture the habitat structure variability provided by the impacted wetlands in time once the vegetation matures and develops.

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1 May 2026	S53 report Table 2 Land Ecology Appendix 5– Tech Advice Land Ecology para 2d, 56-72	2.35	Missing taxa surveys	“Additional taxa surveys are required for non-vascular plants, invertebrates, and Canterbury mudfish to ensure that the ecological values are appropriately characterised.” “Additional taxa surveys should be undertaken by the Applicant, particularly for non-vascular plants, invertebrates, and Canterbury mudfish. CRC also considers that wetlands should be further surveyed for the potential presence of Canterbury mudfish. These surveys are important to ensure that appropriate management measures are implemented and that any additional ecological values are properly reflected in the assessment of residual effects. While CRC considers that it would be preferable for these surveys to be completed prior to a decision on the Fast-track application, it acknowledges time constraints and considers that this matter could be addressed through conditions, noting that the regional consent conditions (including EM.4) provide for offset and compensation values to be revisited. Technical Advice note provides further detail including “ i) A significant range of taxa have not been surveyed at all, such as annelids, flatworms, nematodes, rotifers, insects, crustaceans, molluscs, fish, non-vascular plants, fungi and algae. ii) In particular, DOC have raised the importance of surveying the wetlands for the ‘Threatened – Nationally Critical’ Canterbury mudfish, which is thought highly likely to be present within the project footprint. iii) Therefore the aquatic values of the wetlands have not been fully considered and the calculated offsets are likely to be inadequate.”	Canterbury Mudfish Please refer to evidence of Patrick Lees Invertebrates The potential presence of ‘At Risk’ or ‘Threatened’ invertebrate species (Pawson & Emberson 2000, Trewick et al. 2022, Bulman et al. 2025) within the highly modified habitats within the project area was assessed through iNaturalist records and a review of published and grey literature. Invertebrate taxa detected during freshwater eDNA sampling were also reviewed. eDNA samples were collected from 14 locations including the Kaiapoi River, artificial drains to the Cam River, the Cam River, McIntosh Drain, Waihora Stream, Taranaki Stream, and two unnamed ponds. In total, 163 invertebrate (spiders, insects, mites and ticks, and springtails) taxa were detected through eDNA sampling, with 18 of these considered native to New Zealand. None of the 18 native species detected through eDNA sampling have a threat classification of ‘At Risk’ or ‘Threatened’. While invertebrate taxa listed as regionally or nationally ‘At Risk’ or ‘Threatened’ are known from the wider Canterbury region, available literature suggests that these species are largely associated with less modified habitats such as remnant indigenous forest, montane and alpine environments, the Port Hills, or Banks Peninsula (Pawson & Emberson, 2000). The project area is characterised by highly modified habitats that are dominated by exotic plant species and subject to high levels of disturbance. This, together with the absence of pest animal control through most of the project area, substantially reduce habitat suitability for indigenous invertebrate species (Barlow et al., 2002). As such, it is considered highly unlikely that any ‘At Risk’ or ‘Threatened’ invertebrate species are present within the project area and invertebrate surveys are not considered necessary. For a response regarding the assessment of aquatic value of wetlands, see Comment ID 1.27 in the response table for the Department of Conservation. <u>References</u> Pawson, S.M., Emberson, R.M., 2000. The conservation status of invertebrates in Canterbury. Conservation Advisory Science Notes No. 320, Department of Conservation, Wellington. Bulman, S.; Teulon, D.A.J.; Michel, P. 2025: Conservation status of indigenous aphids in Aotearoa New Zealand, 2024. New Zealand Threat Classification Series 45. Department of Conservation, Wellington. 16 p. Barlow, N. D., Goldson, S. L., & Pimentel, D. (2002). Alien invertebrates in New Zealand. Biological invasions: economic and environmental costs of alien plant, animal, and microbe species, 195-216. Trewick, S.; Hegg, D.; Morgan-Richards, M.; Murray, T.; Watts, C.; Johns, P.; Michel, P. 2022: Conservation status of Orthoptera (wētā, crickets and grasshoppers) in Aotearoa New Zealand, 2022. New Zealand Threat Classification Series 39. Department of Conservation, Wellington. 28 p. Non-vascular plants

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					A desktop review of records of non-vascular plants (mosses, liverworts, and hornworts) and fungi from within 5 km of the Project Site was undertaken using iNaturalist observations, focussing on species with a national conservation status of 'At Risk' or 'Threatened'. A further search for 'At Risk' or 'Threatened' non-vascular plants from the Low Plains Ecological District using herbarium records held by the Auckland War Memorial Museum, the Global Biodiversity Information Facility database, and the Australasian Virtual Herbarium was also undertaken. The iNaturalist database has a record of an indigenous liverwort species with a conservation status of 'At Risk – Declining' from a location approximately 1 km southwest of the Quarry Lakes. <i>Ricciocarpos natans</i> can be found in both terrestrial and aquatic environments, and it has a conservation status of At Risk – Declining (de Lange et al 2020). Although not directly observed or detected in eDNA sampling, this species may be found within, and within the 10 m terrestrial riparian margin of streams. Approximately 170 m of potentially suitable stream habitat (within Waihora Stream and McIntosh Drain) is being impacted by the Project. The impacted areas will be reinstated, either fully through stream realignments (Waihora Stream) or partially via culverts (McIntosh Drain), following completion of works and there is similar contiguous habitat upstream and downstream of the impacted areas. As such, the species (if present) will be able to recolonise following completion of works and the temporary loss of this habitat will not have an adverse effect on the species at a population level. No records of other 'At Risk' or 'Threatened' non-vascular plants from the Low Plains Ecological District were found in any other database searches. Given the highly modified and disturbed nature of the project area, it is considered unlikely that any other 'At Risk' or 'Threatened' non-vascular plants are present. Vegetation proposed for removal is well represented in the surrounding area and represents a very small proportion of the total habitat available and in the unlikely event that there is an undetected 'At Risk' or 'Threatened' non-vascular plant present, vegetation removal for the project is highly unlikely to have an adverse effect on the species at a population level. As such, no surveys for non-vascular plants are considered necessary.
1 May 2026	S53 report Table 2 River Engineering	2.36	Effects on flow in Waihora Stream	“There are outstanding concerns in relation to the level of effects that will result from the predicted changes in flow within Waihora Drain. Ms Unwin notes that the increase in flow is not negligible, with modelling indicating an approximate 25% increase across the drain. Ms Unwin further considers that reliance on highly infiltrative soils to mitigate this increase is not sufficiently substantiated, as infiltration effects have not been quantified. In addition, during storm events where antecedent soil moisture conditions are elevated, infiltration capacity may be reduced, and the increased flows would persist.” “CRC considers that the concerns regarding increased flows within Waihora Drain could be addressed through design modifications to accommodate the additional discharge, such as increasing the conveyance capacity of the drain. Alternatively, this matter could be addressed through engagement with the Waimakariri District Council (WDC) drainage team to confirm whether the predicted increase in flow can be appropriately accommodated within the existing network. Accordingly, CRC has not proposed specific	Refer to statement of evidence of David Delagarza, section 12.

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				amendments to the conditions in Appendix 11 in relation to this matter at this time; however, brings the issue to the Panel's attention."	
1 May 2026	S53 report Table 2 River Engineering, & Stormwater Appendix 7 – Tech Advice Stormwater	2.37	Stormwater and flood modelling – peer review	Table 2 "There are outstanding concerns regarding the stormwater and flood modelling, noting that it has not been subject to independent peer review. She considers that peer review is standard industry practice and is an important mechanism for identifying potential gaps or errors in modelling assumptions and outputs." " the flood model should be subject to independent peer review to ensure that model inputs, assumptions, and outputs are robust. " "CRC also considers that concerns regarding the flood modelling can be addressed by requiring an independent peer review of the model. The outcomes of this review should be used to inform the final design of stormwater infrastructure, to ensure that the intended hydraulic performance and flood management outcomes for the catchment are achieved. Accordingly, CRC proposes the inclusion of an additional condition within the operational phase discharge consent requiring peer review of the flood model (proposed condition O3.4). This amendment is reflected in Appendix 11." Paragraphs 19-24 of the tech advice stormwater also addresses this matter.	Refer to statement of evidence of David Delagarza, section 7.
1 May 2026	S53 report Table 2 Stormwater 1	2.38	Provision of additional stormwater info to panel	Key area of concern that "the additional stormwater information provided to CRC, including material developed to a 100% detailed design level, should also be made available to the Panel for consideration, notwithstanding that it does not form part of the Substantive Application." "It would be beneficial for the Panel to request the stormwater information developed to a 100% detailed design level. Provision of this information would enable a more robust assessment of the proposed stormwater system and a clearer understanding of the Applicant's proposed mitigation measures. Accordingly, CRC has not proposed specific amendments to the conditions in Appendix 11 in relation to this matter, albeit would be able to do this if requested by the Panel, on received of the 100% detailed design."	It is not necessary for the Panel to be provided with the 100% stormwater design material which was provided to the CRC. This level of detail is not necessary for the Panel to make its determination. NZTA provided the additional detail to CRC so that it could identify any issues which it wished to discuss or highlight for the Panel. CRC's Section 53 material has highlighted a number of issues, as a result of its review of this material. NZTA's experts have provided additional information on stormwater matters in the Section 55 response. This process allows the Panel to have the benefit of expert stormwater opinion, but without needing to review extensive technical documentation.
1 May 2026	S53 report Table 2 Stormwater 2-3 Appendix 7 – Tech Advice Stormwater	2.39	Stormwater design – insufficient information	Key area of concern that "the information provided in relation to the proposed stormwater system is insufficient, particularly with respect to the sizing of treatment devices and the level of treatment performance to be achieved." Technical Advice note provides further detail. "Concerns regarding insufficient information on the sizing and treatment performance of stormwater infrastructure can be addressed through the inclusion of an additional condition within the operational phase discharge consent (proposed conditions O3.12). This condition would require the provision of detailed design information to demonstrate that appropriate treatment standards are achieved. This amendment is reflected in Appendix 11."	See statement of evidence of David Delagarza, section 8. The stormwater system is designed in accordance with the NZTA stormwater treatment specification. It has been sized to capture 25mm of rain and/or treat 5mm / hr of runoff in accordance with this criteria. Proposed condition O3.21(e) requires drawings and reports to be provided to CRC to demonstrate that the stormwater system design achieves the minimum performance criteria and appropriate treatment standards. This is largely consistent with the condition wording proposed by CRC.

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1 May 2026	S53 report Table 2 Stormwater 4-10 Appendix 7 – Tech Advice Stormwater	2.40	Stormwater modelling	“the modelling should incorporate Maximum Probable Development (MPD), assessment of the 10-year event, and post-development scenarios including mitigation measures. “ “the model should be updated to include the alignment area south of the Cam River, as the current assessment does not clearly demonstrate how effects and mitigation performance will be evaluated in this area.” Technical Advice note provides further detail.	Refer to statement of evidence of David Delagarza, section 6.
1 May 2026	S53 report Table 2 Stormwater 11 Appendix 7 – Tech Advice Stormwater	2.41	Bridge and large culvert peer review	“bridges and large culverts (as defined in the NZTA Bridge Manual) should be subject to independent peer review to confirm that scour protection and mitigation measures are appropriately designed to manage events up to the 100-year Average Recurrence Interval (ARI).” Technical Advice note provides further detail. CRC suggest that “Peer review of bridges and large culverts can be addressed through the inclusion of a condition requiring independent review of these structures to confirm that appropriate scour protection and mitigation measures are incorporated, particularly for events up to the 100-year ARI.”	Refer to statement of evidence of David Delagarza, section 9. NZTA has engaged suitably qualified experts to design its roading projects, and to ensure they will be durable. This is consistent with NZTA’s objective, functions and operating principles, which are set out in the Land Transport Management Act 2003. The resource consent conditions should not establish a process whereby CRC audits NZTA’s compliance with these legislative functions. Peer review adds cost and delay. Peer reviews frequently recommend changes, which may, or may not, be chosen to adopted. There are many reasons why recommendations may not be adopted. For example, additional scour protection could impact on private land, damage archaeological or ecological values, or replacing scour protection following smaller flood events may be cheaper and have fewer impacts than simply protecting against a 100-year ARI. These decisions should be left to NZTA as asset owner.
1 May 2026	S53 report Table 2 Stormwater 12 Appendix 7 – Tech Advice Stormwater	2.42	Stormwater runoff to Gladstone Landfill	“Concerns regarding potential stormwater discharges to the Gladstone Landfill HAIL site remain noting the potential for mobilization of contaminants within runoff.” Technical Advice note provides further detail. CRC suggest “Concerns regarding the mobilisation of contaminants on HAIL sites as a result of stormwater discharges can be addressed through the inclusion of an additional condition to avoid or appropriately manage stormwater discharges to contaminated land (proposed condition O3.10).”	Refer to statement of evidence of David Delagarza, section 10.
1 May 2026	S53 report Table 2 Stormwater 13 Appendix 7 – Tech Advice Stormwater	2.43	Erosion and scour protection	“Concerns regarding erosion and scour protection for waterways associated with stormwater infrastructure remain. He considers that such measures should apply to all relevant structures, including minor and major culverts and stream diversions.” Technical Advice note provides further detail. CRC suggest that “Erosion and scour concerns associated with the construction, operation, and maintenance of stormwater infrastructure can be addressed through the	Refer to statement of evidence of David Delagarza, section 11.

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				inclusion of an additional condition requiring the implementation of appropriate erosion and scour protection measures(proposed condition O3.13)."	
1 May 2026	S53 report Table 2 Stormwater 14 Appendix 7 – Tech Advice Stormwater	2.44	Conditions relating to managing stormwater effects	"The resource consent conditions, as lodged, lack sufficient detail to ensure that stormwater effects are appropriately managed. He considers that the conditions should address the following matters: i. Water quality treatment design; ii. Attenuation of peak flows from new impervious areas; iii. Waterway realignments and the sizing of culverts and bridges for cross-catchment conveyance; iv. Fish passage provisions at culverts; v. Mitigation of effects associated with infilling within the floodplain; vi. Demonstration of how flood risk mitigation outcomes will be achieved; vii. Effects of groundwater inflows on stormwater infrastructure capacity; viii. Groundwater influences on proposed infiltration devices; ix. Specific requirements for stormwater management within landfill areas; x. Design documentation to demonstrate compliance of stormwater infrastructure with consent requirements; and xi. As-built information to confirm that stormwater infrastructure has been constructed in accordance with the approved design." Technical Advice note provides further detail. CRC has suggested a suite of additional conditions to address this, in Appendix 11 of its response.	NZTA has considered CRC's suggested conditions (as set out in Appendix 11 of the section 53 comments) and addressed these within the <i>2D Proposed Resource Consent Conditions s55 Tracker</i> .
1 May 2026	S53 report Table 2 Surface water resources Appendix 8 – Tech Advice Surface water resources	2.45	Dewatering discharges	Clarification is sought regarding whether dewatering discharges will be treated prior to discharge, and if so, the expected time lag between abstraction and discharge. Any delay in discharge related to time lag mentioned above could result in temporary reductions in stream flows, which may have adverse effects on freshwater ecological values.	The potential time lag between the commencement of dewatering (i.e. removal of groundwater) and the discharge back into the adjacent surface water is considered small such that potential stream depletion will not be realised. Where dewatering is undertaken with well point systems, we assume that the well points will provide clean water and any treatment is unlikely to generate a significant lag between take and discharge. Where dewatering is from sumps and additional treatment may be required, any lag introduced is considered unlikely to result in stream depletion due to the small scale of the abstraction. The general method for dewatering an excavation (whether from a sump or wellpoints) does not result in instantaneous removal of all of water from the excavation . The discharge is expected to pass through the treatment processes in a continuous manner (often similar to the extraction rate). This is expected to result in discharge of treated water back to

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Date received	Document name & page / para reference	Comment ID	Topic	Extract/summary of comment	NZTA response
					surface water at a similar or higher rate than any stream depletion rate. Therefore, any potential effects on ecology caused by the lag time between dewatering removal and discharge are expected to be mitigated.
1 May 2026	S53 report Table 2 Water Ecology and Quality Appendix 9 – Tech Advice Water Ecology and Quality para 10	2.46	TSS trigger value for discharges to surface water	CRC considers that discharges should comply with a total suspended solids (TSS) limit of 50 g/m³ at all times to avoid adverse effects on habitat quality and ecological function.” “Although 24 hours may seem short, the first 24 hours of dewatering represents a critical period during which a high-intensity pulse event is most likely to occur. Such pulse discharges can introduce a sudden and substantial sediment load into the receiving environment, overwhelming the natural assimilative capacity of the watercourse. Aquatic systems are particularly vulnerable to these short-term spikes, as they can cause acute stress to sensitive organisms. In addition, the rapid deposition of fine sediments can smother benthic habitats, including macroinvertebrate communities and fish spawning substrates, leading to a decline in habitat quality and ecological function.” CRC has suggested the removal of the condition that allowed a 24-hour period for compliance with the above trigger.	The ESCP will specify the measures to reduce sediment discharge be implemented as per condition MP.10. Even with best practice staging and rapid stabilisation, this brief "first-wet" period can produce a transient turbidity/TSS spike that does not represent the ongoing performance of new channels, swales, or outfalls when first connected. A short commissioning period (24 hours) is necessary while adjacent disturbed soils stabilise and residual construction fines are flushed. Allowing a limited, 24 hour period at the commencement of discharge enables controlled management of the initial flush within the treatment train, which is more protective overall. Water being discharged must meet the 100 mm visual clarity which would prevent the acute pulse effects during commissioning. Our ecology review (included below) states that this results in a very low to low overall level of effect on the Project watercourses and stream fauna. The EclA report states similar outcomes from sediment effects and acknowledges that there is potential for a low magnitude of effect once erosion sediment controls are in place. This low magnitude of effect is due to the understanding that there will be a temporary discernable change that will have a low effect on stream features/ functions. In line with the EIANZ Ecological Impact Assessment Guidelines¹, which were used as a framework to aid in determining the magnitude of effect and overall level of effects in the EclA, this results in a very low to low overall level of effect on the Project watercourses and stream fauna.
1 May 2026	S53 report Table 2 Planning Appendix 10 – Tech Advice Planning	2.47	Policies and objectives	CRC considers that "certain elements of the assessment, when made against relevant policies and objectives, do not include measurable evidence or supporting information to demonstrate consistency with the stated provisions.” This matter is further clarified in the Appendix 10 <i>Key Areas of Incompleteness from a Policy Planning Perspective</i> table. CRC considers that the updated condition set in Appendix 11 provides improved alignment with the relevant policies and objectives.	NZTA considers the policy assessment proportionate, based on detailed assessments presented in the technical reports, and supported through reference to appropriate conditions, including the provision of a suite of management plans. NZTA notes that there is broad agreement on conditions as demonstrated in the <i>2D Proposed Resource Consent Conditions s55 Tracker</i>, which addresses this comment.
1 May 2026	S53 report Table 2 Planning Appendix 10 – Tech Advice Planning	2.48	Chapter 6 of Canterbury Regional Policy Statement	CRC considers that "there is limited assessment against the objectives and policies of Chapter 6 of the Canterbury Regional Policy Statement (CRPS), which relates to the Greater Christchurch Metropolitan urban area, including Woodend/ Pegasus.” CRC provided an assessment against Chapter 6 in Appendix 10 to ensure a comprehensive assessment against the relevant objectives and policies applicable to the project. Further detail is provided in the Planning Technical Advice.	NZTA appreciates CRC assessment and agrees that the objectives and policies of CRPS Chapter 6 align with and are supportive of the Project, noting the Project achieves the integrated and efficient provision of regionally significant infrastructure and transport networks, consistent with the CRPS Chapter 6 policy framework.

¹ published by the Environment Institute of Australia and New Zealand (EIANZ). Roper Lindsay, J., Fuller S.A., Hooson, S., Sanders, M.D., Ussher, G.T. (2018). Ecological impact assessment. EIANZ guidelines for use in New Zealand: terrestrial and freshwater ecosystems. 2nd edition.