

Objective	Policy
<b>Section 8: Key issue - Amenity effects (Noise, dust, visual effects)</b>	
5.1.2	Avoidance, remedying or mitigation of adverse effects from the use of land on the use and enjoyment of other land and on the qualities of natural and physical resources.
5.1.3.1	To ensure that any adverse effects of subdivision and development on site amenity, natural and built heritage and landscape values, and contamination and natural hazard risks are avoided, remedied, or mitigated.
5.1.3.9	To avoid, remedy, or mitigate effects of: (a) noise and vibration; (b) dust and other particulate emissions; (c) contaminant discharges; (d) odour and fumes; [...] beyond the boundaries of the site generating the effect.
5.1.3.11	To avoid, remedy, or mitigate the likelihood and adverse effects of the discharge of any contaminant beyond the property on which it is generated, stored, or used.
5.2.2	Maintenance and enhancement of amenity values on site and within communities throughout the District.
5.2.3.1	To maintain privacy in residential properties, and for rural dwelling sites.
5.2.3.4	To promote amenity through vegetation, landscaping, street and park furniture, and screening.
5.2.3.8	To avoid, remedy or mitigate the adverse effects of traffic (including noise) on the amenity of residential, commercial and rural areas.
6.5.2.1	Accommodation of a wide range of industrial activities in locations where adverse effects on other values and activities are avoided, remedied or mitigated.
6.5.3.6	To avoid the adverse effects of industrial activities that are unrelated to the rural environment on the amenity and character of rural areas.
7.2.2.3	Retention of opportunities for rural industrial development that is appropriately located in rural areas for production-related industries, in the form of the Rural Industrial Zone.
7.2.3.9	To enable sites in specific locations to be used primarily for rural industrial, [...] purposes, having regard to: (a) the productive values of the land; [...] (d) cross-boundary effects, including any actual and potential adverse effects and potential reverse sensitivity effects on existing

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	<p>activities from new or future activities; [...] (ea) in relation to rural-industrial development, the efficient location of the activity in association with sources of plant and animal production, existing development capacity, and the transportation network; (f) the availability of specific productive natural resources, such as aggregates or other mineral sources; [...]</p> <p>7.2.3.12 To ensure that activities which are not involved or associated with plant and animal production do not locate where they may adversely affect or be adversely affected by such activities.</p>
7.4.2	Avoidance, remedying or mitigation of the adverse effects of a wide range of existing and potential future activities, including effects on rural character and amenity values.
7.4.3.1	To ensure that there is sufficient flexibility for a wide range of productive rural activities to take place, while avoiding, remedying or mitigating adverse effects.
7.4.3.2	To provide for rural activities which may involve levels and types of effects, including noise, dust, smoke and odour, that may be permanent, temporary or seasonal, and that may not meet standards typically expected in urban areas.
7.4.3.4	To exclude from rural areas, uses or activities (including rural-residential) which would have adverse effects on rural activities, health or amenity values, where those effects cannot be avoided, remedied or mitigated.
8.2.2	Maintenance and enhancement of the natural character of the margins of lakes, rivers, wetland and the coast, and the protection of that character from adverse effects of the subdivision, use, development or maintenance of land or other resources, including effects on landform, vegetation, habitats, ecosystems and natural processes.
8.2.3.4	To avoid, remedy or mitigate adverse effects of [...] land disturbance on the [...] amenity values of the margins of lakes, rivers, wetlands or the coast.
8.2.3.7	To ensure that the [...] use or development of land is managed in a way that avoids where practicable, and otherwise remedies or mitigates any adverse effects, including cumulative effects, on the natural character, landscape character and amenity values of the [...] margins of lakes, rivers and wetlands.

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9.2.2	Retention of the contribution rural landscapes make to the amenity values and rural character of the District, and protection of those values from inappropriate subdivision and development.
9.2.3.3	To retain the rural characteristics of the landscape within rural areas.
9.2.3.5	To evaluate, and to avoid, remedy or mitigate cumulative adverse effects of development on landscape values within rural areas.
11.1.2	A safe and efficient transport system, where any adverse effects of the subdivision, use or development of land on the transport system are avoided, remedied or mitigated.
11.1.3.4	To avoid, remedy or mitigate adverse effects of traffic on amenity values.
12.1.2	The avoidance, remedying, or mitigation of adverse effects of land disturbance, including: [...] (e) adverse visual effects; [...].
12.1.3.1	To promote land use practices that avoid, remedy, or mitigate the adverse effects of land disturbance on the environment, including avoidance of sediment movement through sinkholes into karst systems.
34.1.2	The discharge of contaminants to air in such a way that avoids, remedies or mitigates adverse effects while: (a) maintaining existing air quality; and (b) enhancing air quality where existing quality is degraded for natural or human uses or values.
34.1.3.1	To ensure that any discharges of contaminants to air are undertaken in a way that avoids, remedies or mitigates any adverse effects on the receiving environment or surrounding activities.
34.1.3.4	To provide for management of some actual and potential adverse effects of discharges to air - particularly odour and dust effects - as ancillary to land use activities, and to take them into account when resource consent applications are being considered.
34.1.3.8	To adopt the best practicable option for discharge of contaminants to air associated with activities which are temporary or informal in nature.

Objective	Policy
<p><b>Section 9: Key issue – Traffic Effects (Traffic safety, access, capacity)</b></p>	
<p>5.1.2</p>	<p>Avoidance, remedying or mitigation of adverse effects from the use of land on the use and enjoyment of other land and on the qualities of natural and physical resources.</p>
<p>5.1.3.9</p>	<p>To avoid, remedy, or mitigate effects of: [...] (g) vehicles; [...]; beyond the boundaries of the site generating the effect.</p>
<p>5.2.2</p>	<p>Maintenance and enhancement of amenity values on site and within communities throughout the District.</p>
<p>5.2.3.8</p>	<p>To avoid, remedy or mitigate the adverse effects of traffic on the amenity of residential, commercial and rural areas.</p>
<p>7.2.2.3</p>	<p>Retention of opportunities for rural industrial development that is appropriately located in rural areas for production-related industries, in the form of the Rural Industrial Zone.</p>
<p>7.2.3.9</p>	<p>To enable sites in specific locations to be used primarily for rural industrial [...] purposes, having regard to: [...] (d) cross-boundary effects, including any actual and potential adverse effects and potential reverse sensitivity effects on existing activities from new or future activities; [...] (ea) in relation to rural-industrial development, the efficient location of the activity in association with sources of plant and animal production, existing development capacity, and the transportation network; [...] (g) transport access and effects; [...].</p>
<p>11.1.2</p>	<p>A safe and efficient transport system, where any adverse effects of the subdivision, use or development of land on the transport system are avoided, remedied or mitigated.</p>
<p>11.1.3.2</p>	<p>To ensure that land uses generating significant traffic volume: (a) are located so that the traffic has access to classes of roads that are able to receive the increase in traffic volume without reducing safety or efficiency; (b) are designed so that traffic access and egress points avoid or mitigate adverse effects on the safety and efficiency of the road network.</p>
<p>11.1.3.6</p>	<p>To control the design, number, location and use of vehicle accesses to roads; including their proximity to intersections and any need for reversing to or from roads; so that the safety and efficiency of the road network is not adversely affected.</p>

**Section 10: Key issue – Loss of productive land**

7.1.2.1 Except where rural land is deferred for urban use, avoiding the loss of value for all rural land of existing and potential productive value to meet the needs of future generations, particularly land of high productive value.

7.1.2.2 Retention and enhancement of opportunities for plant and animal production on land with high productive value in the District, identified as the Rural 1 Zone.

7.1.3.2 To avoid, remedy or mitigate the effects of activities that reduce the area of land available for plant and animal production purposes in rural areas.

7.1.3.3 To avoid, remedy or mitigate adverse actual, potential, and cumulative effects on the rural land resource.

7.1.3.11 To discourage commercial, industrial and rural industrial activities in the Rural 1 and Rural 2 zones, except where the activity is directly associated with plant and animal production in the District or is required for a business activity having a significant functional need to locate in the rural area.

7.2.2.3 Retention of opportunities for rural industrial development that is appropriately located in rural areas for production-related industries, in the form of the Rural Industrial Zone.

7.2.3.9 To enable sites in specific locations to be used primarily for rural industrial, [...] purposes, having regard to: (a) the productive values of the land; [...] (j) efficient use of the rural land resource; [...].

12.1.2 The avoidance, remedying, or mitigation of adverse effects of land disturbance, including: (a) damage to soil; (b) acceleration of the loss of soil; [...]

12.1.3.4 To avoid, remedy, or mitigate the adverse effects of earthworks for the purpose of mineral extraction, on the actual or potential productive values of soil, particularly on land of high productive value.

**Section 11: Key issue - Effects on flood plain and stop bank**

7.4.2 Avoidance, remedying or mitigation of the adverse effects of a wide range of existing and potential future activities, including effects on rural character and amenity values.

Objective	Policy
7.4.3.13	To ensure the maintenance or enhancement of natural drainage features within rural catchments, and to avoid, remedy, or mitigate any adverse effects of stormwater runoff.
8.2.2	Maintenance and enhancement of the natural character of the margins of lakes, rivers, wetland and the coast, and the protection of that character from adverse effects of the subdivision, use, development or maintenance of land or other resources, including effects on landform, vegetation, habitats, ecosystems and natural processes.
8.2.3.7	To ensure that the [...] use or development of land is managed in a way that avoids where practicable, and otherwise remedies or mitigates any adverse effects, including cumulative effects, on the natural character, [...] of the [...] margins of lakes, rivers and wetlands.
13.1.2.1	Management of areas subject to natural hazard, particularly flooding, instability, coastal and river erosion, inundation and earthquake hazard, to ensure that development is avoided or mitigated, depending on the degree of risk.
13.1.2.2	Land development, including supporting network infrastructure asset services, is resilient against natural hazards.
13.1.3.1	To avoid the effects of natural hazards on land use activities in areas or on sites that have a significant risk of instability, earthquake shaking, fault rupture, flooding, erosion or inundation, or in areas with high groundwater levels.
13.1.3.4	To avoid or mitigate adverse effects of the interactions between natural hazards and the [...] use and development of land.
13.1.3.9	To prevent damage or interference with the functioning of the major overland flood flow paths of rivers in the District, except as provided for in Policy 13.1.3.10.
13.1.3.13	To regulate land disturbance so that slope instability and other erosion processes and inundation are not initiated or accelerated.
13.1.3.14	To avoid damage by land use activities to flood control structures or works for flood or erosion control.

**Section 12: Key issue – Effects on surface water and groundwater**

5.1.2 Avoidance, remedying or mitigation of adverse effects from the use of land on the use and enjoyment of other land and on the qualities of natural and physical resources.

- 5.1.3.2    To protect the quality of groundwater and surface water from the adverse effects of urban development and rural activities.
- 5.1.3.8    Development must ensure that the effects of land use or subdivision activities on stormwater flows and contamination risks are appropriately managed so that the adverse environmental effects are no more than minor.
- 5.1.3.9    To avoid, remedy, or mitigate effects of: [...] (c) contaminant discharges; [...]; beyond the boundaries of the site generating the effect.
- 5.1.3.11    To avoid, remedy, or mitigate the likelihood and adverse effects of the discharge of any contaminant beyond the property on which it is generated, stored, or used.
- 5.1.3.12    To protect the natural character of coastal land from adverse effects of further subdivision, use or development, including effects on: [...] (e) water and air quality; [...].

5.5.2 Reduction of risks to public health and safety, property and the environment, arising from fire and hazardous substances.

- 5.5.3.4    To avoid any escape or discharge to surface water or groundwater, or drift to other property, of any hazardous substance, from within the site where it is used
- 5.5.3.5    To require adoption of land management practices that avoid the potential for creating future contaminated sites.

8.2.2 Maintenance and enhancement of the natural character of the margins of lakes, rivers, wetland and the coast, and the protection of that character from adverse effects of the subdivision, use, development or maintenance of land or other resources, including effects on landform, vegetation, habitats, ecosystems and natural processes.

Objective	Policy
8.2.3.7	To ensure that the [...] use or development of land is managed in a way that avoids where practicable, and otherwise remedies or mitigates any adverse effects, including cumulative effects, on the natural character, [...] of the [...] margins of lakes, rivers and wetlands.
8.2.3.23	To avoid the loss of river extent and values, unless the Council is satisfied that: (a) there is a functional need for the activity in that location; and (b) the effects of the activity are managed by applying the effects management hierarchy.
12.1.2	The avoidance, remedying, or mitigation of adverse effects of land disturbance, including: [...] (c) sediment contamination of water and deposition of debris into rivers, streams, lakes, wetlands, karst systems, and the coast; (d) damage to river beds, karst features, land, fisheries or wildlife habitats, or structures through deposition, erosion or inundation; [...] (f) damage or destruction of indigenous animal, plant, and trout and salmon habitats, including cave habitats, or of sites or areas of cultural heritage significance; (g) adverse effects on indigenous biodiversity or other intrinsic values of ecosystems.
12.1.3.1	To promote land use practices that avoid, remedy, or mitigate the adverse effects of land disturbance on the environment, including avoidance of sediment movement through sinkholes into karst systems.
12.1.3.3	To investigate and monitor the actual or potential adverse effects of soil erosion, other soil damage, sedimentation and damage to river beds, subsurface water bodies and caves in karst, aquatic and other natural habitats, arising from land disturbances.
27.1.3.1A	To avoid the loss of river extent and values, unless the Council is satisfied that:  (a) there is a functional need for the activity in that location; and (b) the effects of the activity are managed by applying the effects management hierarchy
33.1.2.1	The discharge of contaminants in such a way that avoids, remedies or mitigates adverse effects while: (a) maintaining existing water quality; and (b) enhancing water quality where existing quality is degraded for natural and human uses or values.
33.1.3.2	To avoid, remedy or mitigate the adverse effects of discharges of contaminants so that both individually and cumulatively with the effects of other contaminant discharges, they enable the relevant water quality classification standards to be complied with.



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	<p>33.1.3.5 To ensure that existing water quality is not degraded after reasonable mixing as a result of any discharge of contaminants into water and to take into account the following criteria when determining what constitutes reasonable mixing: [...] (c) The characteristics of the discharge, including the presence of toxic constituents. (d) The community (public) uses and values of the water or any mixing zone, including those specified in the Plan, any water conservation order or water classification for any water body.</p> <p>33.1.3.6 To take into account the following factors in determining the significance of actual or likely adverse effects on the receiving water of or from contaminant discharges: [...] (h) The nature of the risks of the adverse effect. [...]</p> <p>33.1.3.11 To avoid, remedy or mitigate the adverse effects of non-point source contamination arising from land use and discharge activities by a mixture of methods, including regulation of discharge activities, particularly through advocacy of best management practices, and to review the mixture of methods used if environmental monitoring shows that water quality standards are not being maintained.</p>
33.2.3	The avoidance, remediation or mitigation of the adverse effects resulting from emergency discharges or accidental spills.
	<p>33.2.3.2 To ensure that land use and discharge activities are carried out, having regard to contingency planning measures appropriate to the nature and scale of any discharge and risk to the environment for any accidental discharge of any contaminant that may result in connection with the activity.</p>
<p><b>Section 13: Key issue – Effects on cultural values</b></p>	
7.2.2.3	Retention of opportunities for rural industrial development that is appropriately located in rural areas for production-related industries, in the form of the Rural Industrial Zone.
7.2.3.9	To enable sites in specific locations to be used primarily for rural industrial [...] purposes, having regard to: [...] (k) cultural relationship of Māori to their land.

Objective	Policy
10.2.2	Appropriate protection, management and enhancement of historic heritage, including cultural heritage sites, [...], for their contribution to the character, identity, wairua, and visual amenity of the District.
10.2.3.2	To reduce the risk of modification, damage or destruction of cultural heritage sites arising from subdivision, use and development activities.
10.2.3.4	To ensure that where an activity that requires a resource consent will have an adverse effect on the wairua or other cultural or spiritual values associated with a wāhi tapu, that activity has been approved by manawhenua iwi as an affected party.
<h3>Section 14: Key issue - Duration of consent</h3>	
5.1.2	Avoidance, remedying or mitigation of adverse effects from the use of land on the use and enjoyment of other land and on the qualities of natural and physical resources.
5.1.3.14	To provide sufficient flexibility in standards, terms and methods for rural sites to allow for the wide range of effects on amenities which are typically associated with rural activities, and which may vary considerably in the short or long term.

## RM200488 and ors – Summary of submissions

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
01	Graham Sandlant	<ol style="list-style-type: none"> <li>Not permitted in rural 1 zone</li> <li>Water contamination</li> <li>Environmental degradation</li> <li>Motueka River a national treasure – natural, recreational, historical, cultural connections to locals</li> <li>Risk to flood banks from altered river flows</li> <li>Degradation of nearby properties, lifestyles, roads</li> </ol>	○	Decline consent
02	Jane Hobday	<ol style="list-style-type: none"> <li>Not a permitted activity – good farmland for potential future use</li> <li>Restoration won't lead to healthy fertile soil</li> <li>Motueka River's natural, historical, cultural, recreational space to be dramatically impacted</li> <li>Water contamination</li> <li>Flood barriers</li> <li>Heavy truck traffic affecting residents and cyclists – part of great taste trail</li> </ol>	○	Decline consent
03	Jason Peacock	<ol style="list-style-type: none"> <li>Devaluation of residents lifestyle</li> <li>Environmental issues (noise, dust, visual)</li> <li>Water Quality, ground water contamination</li> <li>J &amp; increase</li> </ol>	○	Decline consent
04	Graham Peacock	<ol style="list-style-type: none"> <li>Devaluation of peaceful lifestyle</li> <li>Noise, dust, visual</li> <li>Water quality – ground water contamination</li> <li>Increased heavy traffic - hazardous</li> <li>Rehabilitation of land after gravel extraction not possible</li> </ol>	○	Decline consent
05	Frances Harris	<ol style="list-style-type: none"> <li>Location of extraction site</li> <li>Environmental issues (noise, dust, visual)</li> <li>Traffic: congestion/ disturbance (number of truck/ trailers each day)</li> <li>Water contamination</li> <li>Environmental degradation</li> </ol>	○	Decline consent - Council hires an independent contractor to monitor noise / dust/ fill put in pit as well as water quality - Independent commissioner be hired to red submissions

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
		<ul style="list-style-type: none"> <li>6. Affect on Motueka Valley residency wells/ bores</li> <li>7. Length of project and hours of work</li> <li>8. Fill used in pit</li> </ul>		<ul style="list-style-type: none"> <li>- Breaches of consent dealt with by independent monitoring person – NOT CJ Industries</li> <li>- Start is 8am</li> </ul>
06	Maureen Urwin	<ul style="list-style-type: none"> <li>1. Traffic and associated noise, danger, dust and road destruction</li> <li>2. Dangerous roads (1-lane bridges) and heavy traffic</li> </ul>	○	<ul style="list-style-type: none"> <li>Decline consent</li> <li>- Bring road up to standard and reduce speed limit</li> <li>- Reduce number of truck and trailer movements</li> <li>- Guarantee no crushing plant in future</li> <li>- Guarantee of restoration</li> </ul>
07	Patricia Harris-Virgin	<ul style="list-style-type: none"> <li>1. Noise, dust</li> <li>2. Heavy traffic</li> <li>3. Water contamination</li> <li>4. Hours of work, duration of work (15 yrs)</li> <li>5. Negative visual impact</li> <li>6. Rural 1 zone – horticulture land affected</li> <li>7. Healthy environment expected</li> </ul>	○	Decline consent
08	Jean-Luc Azzis	<ul style="list-style-type: none"> <li>1. Rural 1 zone prohibits industrial activities and quarrying</li> <li>2. River protection</li> <li>3. Heavy traffic on narrow road</li> <li>4. Damage infrastructure</li> <li>5. Noise, dust, amenity</li> <li>6. Arable land which can't be restored</li> <li>7. Pollute aquifer due to leakages/infill</li> <li>8. Plenty of available gravel on river bed</li> </ul>	○	<ul style="list-style-type: none"> <li>Decline consent</li> <li>- No more than 8hrs/day operation</li> <li>- Monitoring of infill/truck movement by independent company with 24/7 cameral surveillance at CJ's expense</li> <li>- Truck movement limited to 1/hour</li> <li>- Water quality monitored 3 monthly</li> <li>- Vehicle access to site fully sealed to minimise dust</li> <li>- Traffic should be through Riwaka bridge and Motueka town.</li> </ul>
09	Heather Brooks	<ul style="list-style-type: none"> <li>1. Land disturbance</li> <li>2. Land subject to flooding hazard</li> <li>3. Purposed transport route</li> </ul>	○	Decline Consent
10	Helen Webb	<ul style="list-style-type: none"> <li>1. Gravel extraction</li> <li>2. Transport routes (trucks too big for roads)</li> <li>3. Traffic flow: heavy truck movements on 1-lane bridges</li> </ul>	○	Decline consent

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
		(Alexander Bluff and Rocky River Road)		
11	Sue Boissevain	<ol style="list-style-type: none"> <li>Vehicle access/truck movements</li> <li>West Bank Rd is narrow, used by bikers, and is the route of Great Taste Trail</li> <li>Single lane bridge at Rocky River is poor</li> <li>Bluff bridge is a dangerous crossing</li> <li>The route via Brooklyn is shorter and faster</li> </ol>	○	Grant Consent, oppose application - Route change – via Brooklyn instead of West Bank - Or double lane bridge across Motueka River
12	Remko Ros & Tessa Hiebendaal	<ol style="list-style-type: none"> <li>Residents with children; heavy traffic is dangerous</li> <li>Heavy traffic/ traffic flows</li> <li>Safety of roads; one lane bridges: collisions likely</li> </ol>	○	Decline consent
13	Nina Jefferies	<ol style="list-style-type: none"> <li>Truck movements on Motueka Valley Highway &amp; Westbank Rd – road capacity, safety, dust, slips, poor visibility</li> <li>Industrial operations in rural 2 zone</li> </ol>	○	Decline consent - Smaller trucks & less movements - Alternate route not in valley - Reduce speed limit - Road repairs post operation at CJ's expense
14	Paul Blackham	<ol style="list-style-type: none"> <li>Noise/vibrations from additional truck movements a "major inconvenience"</li> <li>Hau Rd is primarily a residential street</li> </ol>	○	Decline Consent
15	Wakatu Incorporation	<ol style="list-style-type: none"> <li>Excavation and backfill</li> <li>Transport and Access</li> <li>Cultural heritage</li> <li>Effects on adjoining land</li> <li>Duration of consent</li> <li>Noise</li> <li>Consultation</li> </ol>	○	Decline Consent - Expects that if consent is granted, Council will be consistent with its approach to conditions of consent taken in granting resource consent to another party for gravel extraction off Douglas Road.
16	Justin & Vicki Walker	<ol style="list-style-type: none"> <li>Dwelling and bore at 131 Peach Island Road omitted from all reports</li> <li>Appendix C of Hegley Acoustic Assessment is based on predictions, not fact</li> <li>Land use – agricultural soil</li> <li>Precedent</li> </ol>	○	Decline Consent

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
		<ul style="list-style-type: none"> <li>5. Traffic – Motueka River Westbank Road is narrow and winding – dangerous for school buses</li> <li>6. Noise – health and safety</li> </ul>		
17	Sebastien Doncker	<ul style="list-style-type: none"> <li>1. Location – rural 1 zone, flood plain, river ecosystem, narrow roads with cycle trail, property devaluation</li> <li>2. Dust, trucks, noise</li> <li>3. Backfill quality – pollution?</li> <li>4. Carbon footprint – climate change</li> <li>5. Site and timing/planning of the site</li> <li>6. Local impact and national legislation (NPS 2020) not respected</li> </ul>	O	Decline Consent <ul style="list-style-type: none"> <li>- Excavation across 1ha max</li> <li>- Buffer of 30 m with native forest planted and maintained without herbicides</li> <li>- 3 yrs maximum extraction</li> <li>- 5 trucks/day max on the road with onsite cleaning system for dust.</li> <li>- 50 km/h speed limit on west bank road</li> <li>- No back fill/imported material</li> <li>- Site belongs to TDC after extraction, and will be a wildlife reserve</li> <li>- Hours of operation – 9am-3pm Monday-Friday.</li> <li>- No additional associated service/stockpiling areas</li> <li>- No screening, crushing, processing on site.</li> <li>- No excavation deeper than groundwater</li> </ul>
18	Ruby Fitzgerald	<ul style="list-style-type: none"> <li>1. Support</li> </ul>	S	
19	Alison Kay	<ul style="list-style-type: none"> <li>1. Transport, zoning, discharge to freshwater, noise/dust, cultural heritage</li> <li>2. Not consented activity on Rural 1 land</li> <li>3. Motueka River is Taonga</li> <li>4. Land to lose its Mauri</li> <li>5. Poor fill quality in holes</li> <li>6. Ground water contamination</li> </ul>	O	Decline Consent
20	Dennis Hamann	<ul style="list-style-type: none"> <li>1. Rural land 1; productive land</li> <li>2. Heavy traffic</li> <li>3. Narrow roads</li> <li>4. Noise, dust</li> <li>5. Property Values</li> </ul>	O	Decline Consent
21	Pauline Prescott	<ul style="list-style-type: none"> <li>1. Food productive land</li> <li>2. Traffic flows on dangerous 1-lane bridges and roads used by cyclists</li> </ul>	O	Decline Consent

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
		<ol style="list-style-type: none"> <li>3. Damage to tar-seal and dangerous roads</li> <li>4. Environmental impacts: dust, silt, noise, water quality</li> <li>5. Property value degradation</li> <li>6. Environmental damage to rivers which should be protected</li> </ol>		
22	Linda Jenkins & Larry Lumsden	<ol style="list-style-type: none"> <li>1. Heavy traffic on Motueka Valley Highway</li> <li>2. Visibility on roads; cyclists, motorhomes, cars towing boats and trailers</li> </ol>	O	Decline Consent
23	Andrew Hutton	<ol style="list-style-type: none"> <li>1. Lowering property value</li> <li>2. Endangering cyclists and road users with extra traffic and large vehicles</li> <li>3. Noise pollution</li> <li>4. Ground water and water contamination</li> </ol>	O	Decline Consent
24	Ashley Hodder	<ol style="list-style-type: none"> <li>1. Not permitted activities in rural 1 zone</li> <li>2. Amount of gravel to be extracted</li> <li>3. Precedent</li> <li>4. Hours of operation</li> <li>5. Noise</li> <li>6. Water quality</li> <li>7. Backfill</li> <li>8. Transport</li> <li>9. Bond</li> </ol>	O	Decline Consent - Revised monitoring plan - Far higher proposed bond
25	Sean McLeod	<ol style="list-style-type: none"> <li>1. Creating jobs</li> <li>2. Keeping gravel prices down</li> <li>3. Going forward with business in the area</li> </ol>	S	Grant Consent - Road repairs as damage is done - Reasonable working hours – no weekends/public holidays
26	Mark Cresswell	<ol style="list-style-type: none"> <li>1. Aggregates for roading/concrete manufacture becoming scarce</li> <li>2. Other alternative is to truck aggregate and sand into the region – huge impact on carbon footprint and impose a substantial cost on end user</li> </ol>	S	Grant Consent
27	Trevor Howie	<ol style="list-style-type: none"> <li>1. Location – rural zoned area</li> <li>2. Health and safety – noise, dust, water reservoirs, traffic, long term stability of Alexander Bluff Bridge</li> </ol>	O	Decline Consent

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
		<ul style="list-style-type: none"> <li>3. Visual eyesore</li> <li>4. Devaluation of properties in the valley</li> <li>5. Truck movements</li> </ul>		
28	Margaret Bushell	<ul style="list-style-type: none"> <li>1. Environment – flood bank, water contamination, native wildlife, scenic area a NZ gem</li> <li>3. Noise, visual, air pollution</li> <li>4. Health and safety – dust, traffic, water contamination</li> <li>5. Location – horticultural/agricultural land use, cultural value to iwi</li> </ul>	O	Decline Consent
29	Melissa Dunnink	<ul style="list-style-type: none"> <li>1. Water contamination - residents and livestock</li> <li>2. Native wildlife</li> <li>3. Noise, visual and air pollution</li> <li>4. Heavy transport – health and safety</li> <li>5. Cumulative damage to water tables, drainage, culverts due to increase in traffic</li> </ul>	O	Decline Consent
30	Christine Woollett	<ul style="list-style-type: none"> <li>1. Noise</li> <li>2. Heavy truck traffic</li> <li>3. Dust</li> </ul>	O	Decline Consent - Relocate to a more rural setting away from residential property - At least have a separate entry/ exit road
31	John Clark & Lynette Rombouts	<ul style="list-style-type: none"> <li>1. Location</li> <li>2. Vehicle access; Traffic and routes used</li> <li>3. Environmental consequences</li> </ul>	O	Decline Consent
32	Gillian Wratt	<ul style="list-style-type: none"> <li>1. Great Taste Trail – impacts on cyclists</li> </ul>	N	Grant Consent - Applicant to fund off-rad cycle trail for GTT on section of Motueka River West Bank where road to be used by their trucks - Enhance the quarry road entrance with planting, screening, table, shade for cyclists - Provide security/ surveillance on Motueka River West Bank - Provide prominent signage to inform trucks/cyclists that the road is shared



Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
33	David & Susan Kellogg	<ol style="list-style-type: none"> <li>1. Home overlooks extraction site – lifestyle</li> <li>2. River's flora/fauna</li> <li>3. Sedimentation</li> <li>4. Why does CJ's need to extract here...</li> <li>5. Peacefulness</li> <li>6. Arable land</li> </ol>	O	Decline Consent
34	Jack Barbara	<ol style="list-style-type: none"> <li>1. Rural 1 zoning – agriculture! Better locations available?</li> <li>2. Noise, dust</li> <li>3. Family businesses to be affected</li> <li>4. Road safety</li> <li>5. Flooding and sedimentation</li> </ol>	O	Decline Consent
35	Timothy Panting	<ol style="list-style-type: none"> <li>1. Employment</li> </ol>	S	Grant Consent
36	Kym Neumann	<ol style="list-style-type: none"> <li>1. Not enough resources to meet demand</li> </ol>	S	Grant Consent
37	Graeme & Coralie Le Frantz	<ol style="list-style-type: none"> <li>1. Closest property to the site – not mentioned in many reports, e.g. hydrology report...</li> <li>2. Noise</li> <li>3. Erosion</li> <li>4. Land usage – productivity/versatility</li> <li>5. Dust</li> <li>6. Access and roading</li> <li>7. Water</li> </ol>	O	Decline Consent - Compensation in event fruit affected by dust - Restoration of land in event of flood - Haul road between property and Wakatu leasehold will have to be fenced and gated for cattle management.
38	Janet Jeffries		S	Grant Consent
39	Ross Huff & Ingrid Losch	<ol style="list-style-type: none"> <li>1. Environment – water contamination, flood/stop bank damage, rural 1 land destruction, noise, visual, air pollution</li> <li>2. Health and safety – dust, noise, heavy transport, water contamination</li> <li>3. Roading – cumulative damage to water tables, drainage, etc.</li> <li>4. Precedent for other non-permitted activities</li> </ol>	O	Decline Consent
40	Hannah De Jongh		S	Grant Consent
41	Tyler Ansley		S	Grant Consent

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
42	Fay Stoker	<ol style="list-style-type: none"> <li>Noise and disruption</li> <li>Traffic and roading issues</li> <li>Land disturbance/environmental degradation</li> <li>Water contamination</li> <li>Property/lifestyle devaluation</li> <li>Safety risk</li> <li>Flood prone site</li> <li>Unregulated backfill</li> <li>Dust</li> <li>Poor location choice</li> </ol>	O	Decline Consent - Take the gravel from somewhere else - Do not use the Motueka Valley Highway as the trucking route
43	Richard Mayberry	<ol style="list-style-type: none"> <li>Gravel price – locals that require concrete or gravel will have to pay more if this consent is declined</li> </ol>	S	Grant Consent
44	Darrin Bisley	<ol style="list-style-type: none"> <li>Douglas Rd quarry – compliance issues. "They push the boundaries until they get caught"</li> <li>Flood classification – has flooded in 1990, 2014, 2021</li> <li>Transport – comparison with logging trucks</li> <li>Dust and noise</li> <li>Water bore</li> <li>Visual amenity</li> </ol>	O	Decline Consent
45	Kim Burridge	<ol style="list-style-type: none"> <li>Permanent effect to environment – water contamination (Motueka River)</li> <li>Tourism – opportunity to create cycle/hiking tracks along bank of Motueka River negatively affected</li> <li>Property/lifestyle devaluation</li> <li>Noise, dust, trucking</li> <li>Road safety</li> </ol>	O	Decline Consent - Want council to instead set up working groups to look at developing cycling/walking tracks along the river banks
46	Arthur Woodcock, Derek Woodcock & Shaggery H	<ol style="list-style-type: none"> <li>Zoning</li> <li>Road construction alongside Arthur/Derek Woodcock boundary</li> <li>Noise/dust</li> <li>Truck route – bridge/road unsuitable, safety issues</li> <li>493 Motueka River West Bank Rd right of way</li> <li>Temporary storage – pg 10</li> <li>Reinstatement/infill</li> <li>Visual amenity</li> <li>Lack of consultation</li> </ol>	O	Decline Consent - Independent complaints officer - Start time of 7.30am, not 7am.

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
47	Ian Thorn	<ol style="list-style-type: none"> <li>1. CJ Industries a well-run company – employs many locals, provide valuable service</li> <li>2. Erosion</li> <li>3. Gravel extraction needs to be targeted to areas of high build up.</li> </ol>	O	
48	Brendan Jones	<ol style="list-style-type: none"> <li>1. Gravel will have to be sourced from further away = more truck movements</li> <li>2. Truck movement</li> </ol>	S	Grant Consent
49	Jacob Lucas	<ol style="list-style-type: none"> <li>1. CJ Industries – track record, limited faith</li> <li>2. Backfill material</li> <li>3. Noise</li> <li>4. Water Conservation Order</li> <li>5. Recreation</li> <li>6. Truck movements – 30 trucks per day a significant increase</li> <li>7. Need for gravel – should be taken from areas where the impact on residents will be less. E.g Waimea River gravel extraction operation</li> </ol>	O	Decline Consent - No backfilling to be undertaken - Extraction site to be left as a wetland - Work commences at 8am earliest, not 7am as proposed. - Applicant to contribute to ecological projects within Motueka Valley (based on levy) – native planting, weed/pest control
50	Dean Paynter	<ol style="list-style-type: none"> <li>1. Provides security of resources for Motueka</li> <li>2. Keep employment in the region</li> <li>3. Prevent large increase in cost</li> <li>4. Stops increase in traffic on regions highways by not having to import aggregates</li> </ol>	S	Grant Consent
51	Dean Carroll	<ol style="list-style-type: none"> <li>1. Truck movements</li> <li>2. Great taste trail</li> <li>3. Road quality</li> </ol>	O	Decline Consent
52	David Marshall Virgin	<ol style="list-style-type: none"> <li>1. Hours of operation</li> <li>2. Truck movements</li> <li>3. Noise</li> <li>4. Rural 1 – horticultural land</li> <li>5. Dust</li> <li>6. Stage 1 is in a flood plain and floods regularly</li> <li>7. Water conservation order</li> <li>8. Monitoring</li> </ol>	O	Decline Consent
53	Paul Dixon-Didier	<ol style="list-style-type: none"> <li>1. Transport, access, heavy vehicles, traffic, cycleway</li> <li>2. Stormwater/flooding</li> </ol>	O	Decline Consent

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
		<ol style="list-style-type: none"> <li>3. Dust/noise</li> <li>4. Visual amenity</li> <li>5. Site contamination of surface/groundwater</li> <li>6. Ecological/biodiversity impacts</li> <li>7. Gravel extraction important</li> </ol>		
54	Mervyn Johnston	<ol style="list-style-type: none"> <li>1. Ground water contamination, especially downstream</li> <li>2. Downstream properties at risk of contamination if digging goes below water table</li> </ol>	<b>N</b>	Neutral, however conditions if consent is granted: - Digging near water table needs to be monitored
55	Adrian Green		<b>S</b>	Grant Consent
56	Suzanne Green		<b>S</b>	Grant Consent
57	Marina DeFavero		<b>S</b>	Grant Consent
58	Jillian Jeffries	<ol style="list-style-type: none"> <li>1. Help keep building costs down of building/ road/ etc,</li> <li>2. Downstream properties at risk of contamination if digging goes below water table</li> </ol>	<b>S</b>	Neutral
59	Colin Jeffries		<b>S</b>	Grant Consent
60	Eric Jack & Amanda Taylor	<ol style="list-style-type: none"> <li>1. Road safety; heavy traffic is dangerous</li> <li>2. Water contamination; depth of pit hitting water table</li> <li>3. Environmental strains/ hazards</li> <li>4. Flood banks already under pressure</li> <li>5. Noise and dust</li> </ol>	<b>O</b>	Decline Consent
61	Peter Hartley	<ol style="list-style-type: none"> <li>1. Flooding</li> <li>2. Loss of productive land</li> <li>3. Ground water</li> </ol>	<b>O</b>	Decline Consent
62	Adrienne Croft	<ol style="list-style-type: none"> <li>1. Location</li> <li>2. Stop banks</li> <li>3. Effects on locals – peace and quiet, noise/dust/air pollution, devaluation</li> <li>4. Health and safety – trucks, cyclists</li> <li>5. Road damage</li> <li>6. Bore contamination</li> <li>7. Trout fishing</li> <li>8. Wildlife</li> </ol>	<b>O</b>	Decline Consent

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
63	Alvin & Jean Williams	<ol style="list-style-type: none"> <li>Road traffic will need heavy maintenance</li> <li>Dangerous of Alexander Bluff Bridge and Rocky River Bridge plus potholes on roads</li> <li>Disruption of good farmland</li> </ol>	O	Decline Consent
64	Petrea Carroll	<ol style="list-style-type: none"> <li>Ecology</li> <li>Recreation – great taste trail</li> <li>Zoning</li> </ol>	O	Decline Consent
65	Martin Lucas	<ol style="list-style-type: none"> <li>Zoning</li> <li>Noise, dust, visual pollution, amenity</li> <li>Truck movements – cyclists, safety, etc.</li> <li>Backfill</li> <li>Compliance</li> </ol>	O	Decline Consent
66	Paul McIntosh	<ol style="list-style-type: none"> <li>Location</li> <li>Necessity</li> </ol>	S	Grant Consent - Enforcement of consent conditions
67	Jeffrey Foote	<ol style="list-style-type: none"> <li>Location</li> <li>Lifestyle</li> <li>Devaluation</li> <li>Safety risks</li> <li>Environmental degradation</li> <li>Water contamination</li> <li>Flooding – risks to flood banks</li> </ol>	O	Decline Consent
68	Janine Silcock	<ol style="list-style-type: none"> <li>Increase in gravel and concrete prices if coming from far away/ imported</li> </ol>	S	Grant Consent
69	Murray Silcock	<ol style="list-style-type: none"> <li>Necessary product for roading concrete, etc.</li> </ol>	S	Grant Consent
70	Ian Williamson	<ol style="list-style-type: none"> <li>Resource allocation</li> <li>Location</li> <li>Has been done in the past, what has changed?</li> </ol>	S	Grant Consent
71	Cymen Crick & Nick Morrison	<ol style="list-style-type: none"> <li>Water contamination</li> <li>Safety – roads</li> <li>Environmental degradation</li> <li>Impact on local residents</li> <li>Noise, dust for 15 years</li> <li>Cycleway</li> </ol>	O	Decline Consent
72	Bronwyn Waters	<ol style="list-style-type: none"> <li>Employment</li> <li>Location perfect</li> </ol>	S	Grant Consent

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
		3. Important product		
73	Marios Gavalas	<ol style="list-style-type: none"> <li>Residential area – noise, dust, large trucks on narrow road</li> <li>Property devaluation</li> <li>Health and safety</li> <li>Ecological concerns – river energy budget, erosion, contamination</li> <li>Loss of mauri</li> </ol>	O	Decline Consent
74	Nikita Lunjevich	<ol style="list-style-type: none"> <li>Resource is important</li> </ol>	S	Grant Consent
75	Amanda Sim	<ol style="list-style-type: none"> <li>Local roading: Using locally sourced resources</li> </ol>	S	Grant Consent
76	Martin Major	<ol style="list-style-type: none"> <li>Dust/ noise</li> <li>Heavy vehicle/ traffic</li> <li>Devaluation</li> </ol>	O	
77	Halina Ogonowska-Coates	<ol style="list-style-type: none"> <li>Transport Route</li> <li>Cyclist issues</li> <li>Recreational safety issues</li> </ol>	O	Decline Consent
78	Alan Haycock	<ol style="list-style-type: none"> <li>Drinking water quality</li> <li>Downstream water quality</li> <li>Copper, lead, zinc levels</li> <li>Water level the gravel is extracted to</li> <li>Organic material in backfill</li> <li>Dust control</li> </ol>	N	Grant Consent - No organic material to be dumped - Gravel extraction to stop at winter water level - Council monitoring plan - CJ's pay a fee per tonne for any corrective action, residual money returned
79	Claire Sykes	<ol style="list-style-type: none"> <li>Too close to community/ neighbourhoods with children</li> <li>Water contamination: ground water contam plus ecosystem degradation of the Motueka River and outlet beaches</li> <li>Environmental impacts: Noise, dust, pollution</li> <li>Property devaluation</li> </ol>	O	Decline Consent
80	Hazel Nash	<ol style="list-style-type: none"> <li>Environmental impact</li> <li>Recreation, devaluation</li> <li>Noise, dust – amenity, environment, health</li> <li>Groundwater contamination</li> <li>Transport – cycling</li> </ol>	O	Decline Consent
81	Chris Hagar	<ol style="list-style-type: none"> <li>Flora and fauna</li> </ol>	O	Decline Consent

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
		<ul style="list-style-type: none"> <li>2. Great taste trail</li> <li>3. Traffic movements</li> <li>4. Safety</li> <li>5. Noise, air pollution</li> <li>6. Devaluation</li> </ul>		<ul style="list-style-type: none"> <li>- Noise abatement measures/structures on site</li> <li>- Dust mitigation processes</li> <li>- Speed restrictions, and no engine breaking mandate</li> <li>- Truck traffic via Alexandra bluff bridge to avoid Brooklyn and Motueka townships</li> <li>- Full separation of Great Taste Trail from road traffic</li> </ul>
82	Geoff Miles	<ul style="list-style-type: none"> <li>1. Road Safety</li> <li>2. Truck Movements</li> <li>3. Great Taste Trail</li> <li>4. Alexandra Bluff Bridge</li> </ul>	O	Decline Consent
83	Darin Sunbye	<ul style="list-style-type: none"> <li>1. Water contamination</li> <li>2. Noise</li> <li>3. Increased traffic – hazardous</li> <li>4. Dust</li> </ul>	O	Decline Consent - Independent monitoring with consequences for breaches
84	Hannah Mae	<ul style="list-style-type: none"> <li>1. Lifestyle/environment effects - devaluation</li> <li>2. Rural 1 productive land – precedent setting</li> <li>3. Flood risk</li> <li>4. Road issues</li> <li>5. Public safety</li> <li>6. Compliance</li> <li>7. Clean fill</li> </ul>	O	Decline Consent
85	Ronald Frater	<ul style="list-style-type: none"> <li>1. Rural 1 zoning</li> <li>2. Environmental impact – taonga, local native wildlife/vegetation</li> <li>3. Backfill</li> <li>4. Health and safety</li> <li>5. Road issues</li> <li>6. General – devaluation, amenity, noise, dust</li> </ul>	O	Decline Consent
86	Peter Taia	<ul style="list-style-type: none"> <li>1. Compliance</li> <li>2. Flooding</li> <li>3. Traffic</li> <li>4. Road safety, cyclists</li> <li>5. Dust, noise</li> <li>6. Visual amenity</li> <li>7. Groundwater contamination</li> <li>8. Productive land</li> <li>9. Landscape mitigation plan</li> </ul>	O	Decline Consent

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
87	Patrick Hart	<ol style="list-style-type: none"> <li>Traffic Noise</li> <li>Vibrations from trucks</li> <li>Dust</li> <li>Road Safety</li> <li>Property devaluation</li> </ol>	O	Decline Consent
88	Elizabeth Mahoney	<ol style="list-style-type: none"> <li>Health and safety: Risk to residents and visitors with heavy trucks on rural roads; children at play at risk</li> <li>Heavy traffic; roads not suitable for large trucks</li> <li>Noise pollution</li> </ol>	O	Decline Consent
89	Peter Goldsworthy	<ol style="list-style-type: none"> <li>Dust</li> <li>Noise</li> <li>Water table issues</li> <li>Flooding</li> <li>Rural 1 zoning – industrial activities inappropriate</li> </ol>	O	Decline Consent
90	Cherilyn McLay	<ol style="list-style-type: none"> <li>Rural 1 zoning</li> <li>Boundary issues - compliance</li> </ol>	O	Decline Consent - Adherence to noise control measures outlined in 01C RM20048 - 30 truck movements per day - Breaches/compliance directed to and addressed by TDC - Enforced adherence to boundaries stipulated in application
91	Tony Shuttleworth & Jennifer Shay	<ol style="list-style-type: none"> <li>Truck movements, road safety</li> <li>Noise, dust, emissions</li> <li>Hours of operation</li> <li>Flooding</li> <li>Backfill material</li> <li>Groundwater</li> <li>Rural 1 – productive land</li> </ol>	O	Decline Consent - More regular/stringent testing for groundwater quality - Roads/truck routes to Hau Rd to be made safe - Trucks to have identity number tags displayed to link driver and companies for tracking - Cycle/pedestrian way – construct side shoulder - Reduced speed to 40 km for trucks - Hidden driveway signage along route - CJ's to pay for regular road maintenance - Dust/grit measures - Updated/regular independent flood hazard monitoring



Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
				<ul style="list-style-type: none"> <li>- Prior monitoring of backfill as cleanfill, and that it meets compliance requirements</li> <li>- Truck movements outside peak school bus route hours – 9.30am-2.30pm</li> <li>- Consent limited to two years</li> <li>- CJ's to pay for any devaluation of surrounding properties, and damage, injury, death.</li> <li>- Community to be compensated for any financial impact arising from loss of productive land</li> <li>- Regulation/penalties for non-compliance</li> </ul>
92	Anthony Wenham	<ol style="list-style-type: none"> <li>1. Rural 1 Zoning</li> <li>2. Better locations available</li> </ol>	○	Decline Consent
93	Ian Douglas & Amanda Noble	<ol style="list-style-type: none"> <li>1. Hours of operation</li> <li>2. Dust</li> <li>3. Noise</li> <li>4. Devaluation</li> <li>5. Health and Safety</li> </ol>	○	Decline Consent
94	Alan Knight	<ol style="list-style-type: none"> <li>1. Flooding Risks</li> <li>2. Compliance Concerns</li> <li>3. Water Contamination</li> <li>4. Dust</li> </ol>	○	Decline Consent
95	Michael Harvey	<ol style="list-style-type: none"> <li>1. Tonkin &amp; Taylor hydraulic and stopbank stability analysis</li> <li>2. Envirolink groundwater analysis</li> <li>3. Extraction methods</li> <li>4. Stockpiling</li> <li>5. Erosion/flood risk</li> <li>6. Groundwater impacts</li> </ol>	○	Decline Consent
96	Alejandro Gonzalez	<ol style="list-style-type: none"> <li>1. Environment</li> <li>2. Health and Safety</li> <li>3. Roading suitability</li> <li>4. Location</li> </ol>	○	Decline Consent
97	Marlene Moreau	<ol style="list-style-type: none"> <li>1. Location – noise, rural 1, river flood plain, road issues, traffic</li> <li>2. Backfill</li> <li>3. Aquifer and river ecosystem</li> <li>4. Carbon footprint of activity</li> </ol>	○	Decline Consent <ul style="list-style-type: none"> <li>- Excavation across 1 ha max, with 30 m buffer zone with native forest planted</li> <li>- Max 3 years extraction</li> <li>- 5 trucks max per day on road with cleaning system</li> <li>- Max 50 km</li> </ul>

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
				<ul style="list-style-type: none"> <li>- No backfill/imported materials</li> <li>- Hours of operation 9am-3pm weekdays</li> <li>- No additional associated service/stockpiling area</li> <li>- No screening, crushing, processing on site</li> </ul>
98	James Maguire	1. Road Danger	○	Decline Consent
99	Margaret Swainson	<ol style="list-style-type: none"> <li>1. Groundwater contamination</li> <li>2. Monitoring</li> <li>3. High flood risk</li> <li>4. Dust</li> <li>5. Noise</li> <li>6. Road issues</li> <li>7. Enforcement/compliance</li> </ol>	○	Decline Consent <ul style="list-style-type: none"> <li>- Fund created to cover clean up costs from flooding/contamination</li> <li>- Independent monitoring</li> <li>- Reduced hours</li> <li>- No work on dry windy days</li> <li>- Backing sounds of trucks removed</li> <li>- 60km limit on roads</li> </ul>
100	Ian Barnes	<ol style="list-style-type: none"> <li>1. Zoning</li> <li>2. Flood Issues</li> </ol>	○	Decline Consent <ul style="list-style-type: none"> <li>- Reduce hours of operation</li> <li>- Regular and random monitoring</li> <li>- Fund to remediate issues</li> <li>- Enforcement</li> </ul>
101	Joseph Davies	<ol style="list-style-type: none"> <li>1. Motueka River a natural asset</li> <li>2. Recreation</li> <li>3. Transport</li> <li>4. Safety</li> </ol>	○	Decline Consent
102	Kent Chamberlain	<ol style="list-style-type: none"> <li>1. Cycling</li> <li>2. Traffic</li> <li>3. Poor road conditions</li> <li>4. Rural 1 zone</li> <li>5. Motueka river protection</li> <li>6. Disturb locals – visual, noise, air pollution</li> <li>7. Dust</li> <li>8. Water contamination</li> <li>9. Flood risk</li> <li>10. Devaluation</li> </ol>	○	Decline Consent <ul style="list-style-type: none"> <li>- No more than 8 hours per day – 8am-4pm, or 9am-5pm</li> <li>- Monitoring of infill and truck movement by independent company with 24/7 camera</li> <li>- Truck movement limited to 1 per hour</li> <li>- Water quality monitoring</li> <li>- Vehicle access fully sealed to minimise dust</li> <li>- Traffic should go via Riwaka bridge and Motueka town</li> </ul>
103	Steve Richards	<ol style="list-style-type: none"> <li>1. Zoning</li> <li>2. Traffic safety</li> <li>3. Effects of climate change</li> </ol>	○	Decline Consent <ul style="list-style-type: none"> <li>- Only allow gravel extraction using manual means</li> </ul>
104	John Webster	<ol style="list-style-type: none"> <li>1. Dust</li> <li>2. Water quality</li> </ol>	○	Decline Consent <ul style="list-style-type: none"> <li>- Independent monitoring</li> </ul>

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
		<ul style="list-style-type: none"> <li>3. Trucks – traffic</li> <li>4. Great taste trail</li> <li>5. Fill</li> <li>6. Rural 1 zoning</li> <li>7. Amenity/recreation</li> </ul>		- Dust controls
105	Helen Webster	<ul style="list-style-type: none"> <li>1. Zoning</li> <li>2. Mauri</li> <li>3. Taonga</li> <li>4. Recreation</li> <li>5. Note: access to further doc requested</li> </ul>	O	Decline Consent - Independent monitoring - Appropriate dust controls - Clean fill to be used
106	Darryl Gane	<ul style="list-style-type: none"> <li>1. Heavy vehicle traffic on small roads: no room for cyclists and roads/ bridges too narrow for traffic</li> <li>2. Ground water contamination</li> <li>3. Dust and air pollution</li> <li>4. Ecosystem degradation of lives of residents, wildlife and visitors</li> </ul>	O	Decline Consent
107	Gal Gane	<ul style="list-style-type: none"> <li>1. Heavy vehicle traffic on small roads: no room for cyclists and roads/ bridges too narrow for traffic</li> <li>2. Ground water contamination</li> <li>3. Dust and air pollution</li> <li>4. Ecosystem degradation of lives of residents, wildlife and visitors</li> </ul>	O	Decline Consent
108	Murray Inwood	<ul style="list-style-type: none"> <li>1. Truck movements</li> <li>2. Noise, vibrations</li> <li>3. Backfill contamination of groundwater</li> <li>4. Extreme weather events</li> <li>5. Sedimentation – scallops</li> </ul>		Decline Consent
109	Ollie Langridge	<ul style="list-style-type: none"> <li>1. Industrial activity</li> <li>2. Environmental effects</li> <li>3. Noise</li> <li>4. Visual amenity</li> <li>5. Traffic and safety</li> <li>6. Backfill</li> <li>7. Cultural/soil effects</li> <li>8. Climate change</li> <li>9. Location</li> </ul>	O	Decline Consent
110	Megan Wilson	<ul style="list-style-type: none"> <li>1. Truck movements</li> <li>2. Noise/road safety</li> </ul>	O	Decline Consent

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
		<ul style="list-style-type: none"> <li>3. Fill – potential groundwater contamination</li> <li>4. Flood hazard</li> </ul>		
111	Charles Martin	<ul style="list-style-type: none"> <li>1. Cyclist</li> <li>2. Truck movements</li> <li>3. Environmental degradation</li> <li>4. Recreation</li> <li>5. Noise, dust, visual amenity</li> <li>6. Groundwater contamination</li> <li>7. Taonga</li> </ul>	○	Decline Consent - Independent monitoring to ensure all conditions upheld
112	Marije Laarakker	<ul style="list-style-type: none"> <li>1. Ecological impact</li> <li>2. Noise</li> <li>3. Traffic</li> <li>4. Water pollution</li> <li>5. Disturbance of the peace</li> </ul>	○	Decline Consent
113	Harald Laaraker	<ul style="list-style-type: none"> <li>1. Ecological impact on Peach Island</li> <li>2. Road issues, traffic, safety</li> <li>3. Disturbance of the peace</li> </ul>	○	Decline Consent - Road maintenance at CJ's cost - Clean-up of gravel spill from trucks - Provide clean drinking water to residents in case of pollution - Ecological risk assessment and mitigation plan - Risk assessment relating to water management/flooding
114	duplicate	<ul style="list-style-type: none"> <li>1.</li> </ul>		
115	Richard Bier	<ul style="list-style-type: none"> <li>2. Zoning</li> <li>3. Climate change - flooding</li> <li>4. Land use – productive fertile soil</li> <li>5. Noise</li> <li>6. Traffic safety</li> </ul>	○	Decline Consent
116	Amy Massey	<ul style="list-style-type: none"> <li>1. Environmental impacts: ecological impacts</li> <li>2. Water Quality; ground water contamination</li> <li>3. Dust and Noise</li> <li>4. Road safety: Vehicle movements</li> <li>5. Duration of time: impact of 15years of work is unknown</li> <li>6. Excavation site turning into landfill</li> </ul>	○	Decline Consent
117	Christopher Hinkley & Susan Newit	<ul style="list-style-type: none"> <li>1. Additional service/stockpiling area</li> </ul>	○	Decline Consent

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
		<ul style="list-style-type: none"> <li>2. Environmental concerns – native wildlife; noise, visual and air pollution; water contamination</li> <li>3. Heavy traffic</li> <li>4. Lifestyle/property effects – devaluation</li> <li>5. Productive land</li> <li>6. Newline issue 514 – ‘whole of catchment overview’</li> </ul>		
118	Kenneth Eggers	1. Resources	<b>S</b>	Grant Consent
119	Ian & Lorraine Fagan	<ul style="list-style-type: none"> <li>1. Noise</li> <li>2. Safety</li> <li>3. Environmental Issues</li> <li>4. Property Devaluation</li> </ul>	<b>O</b>	Decline Consent
120	Lynda Hannah	<ul style="list-style-type: none"> <li>1. Noise</li> <li>2. Traffic</li> <li>3. Day to day disruption</li> </ul>	<b>O</b>	Decline Consent
121	Stephen Meijer	<ul style="list-style-type: none"> <li>1. Zoning</li> <li>2. Noise/ dust</li> <li>3. Great taste trail</li> <li>4. Road user safety</li> <li>5. Truck movements</li> </ul>	<b>O</b>	Decline Consent - Alternative bike path from Alexander Bluff bridge to Motueka
122	Mark Hewetson	<ul style="list-style-type: none"> <li>1. Local business</li> <li>2. Important resource</li> <li>3. Truck movements</li> <li>4. Road suitability</li> </ul>	<b>S</b>	Grant Consent
123	Nicky Wassell	1. Dust	<b>S</b>	Grant Consent
124	Anthea Garney	<ul style="list-style-type: none"> <li>1. Water Quality</li> <li>2. Noise</li> <li>3. Trucks and heavy traffic</li> <li>4. Dust</li> <li>5. Prohibited activity on rural 1 land</li> <li>6. Degradation of property value</li> </ul>	<b>O</b>	Decline Consent
125	Wendy Wallator	<ul style="list-style-type: none"> <li>1. Heavy traffic – noise/ safety</li> <li>2. Quality of life – noise</li> </ul>	<b>O</b>	Decline Consent
126	Chambers and Jackett Ltd	1. Resources and jobs	<b>S</b>	Grant Consent
127	Margaret Crick	<ul style="list-style-type: none"> <li>1. Environmental impacts; river and floodplain</li> <li>2. Noise and visual effects</li> <li>3. Land devaluation</li> </ul>	<b>O</b>	Decline Consent

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
		4. Heavy traffic on narrow roads		
128	Valley Residents Against Gravel Extraction Inc	<ol style="list-style-type: none"> <li>1. Whole application</li> <li>2. Vehicle access/movements</li> <li>3. Stockpiling</li> <li>4. Backfill</li> <li>5. Planting</li> <li>6. Sedimentation</li> <li>7. Environment – taonga, water conservation order, contamination</li> <li>8. Flooding</li> <li>9. Compliance</li> </ol>	O	Decline Consent
129	Alan Campbell & Sally King	<ol style="list-style-type: none"> <li>1. Water contamination</li> <li>2. Road Safety risk; poorly maintained rural roads, Big trucks on 1-lane bridges</li> <li>3. Damage to road: Needing new tar-seal</li> <li>4. Flood risk</li> <li>5. Property devaluation</li> <li>6. Noise and dust contamination</li> </ol>	O	Decline Consent
130	Ward Simpson	<ol style="list-style-type: none"> <li>1. Employment</li> </ol>	S	Grant Consent
131	Darin & Jocelyn Stringer	<ol style="list-style-type: none"> <li>1. Rural 1 land; very fertile land used for crops and stock</li> <li>2. Noise pollution</li> <li>3. Heavy trucks on narrow roads</li> <li>4. Structural integrity of flood bank</li> </ol>	O	Decline Consent
132	Nataliya Langridge	<ol style="list-style-type: none"> <li>1. Noise</li> <li>2. Climate change - flooding</li> <li>3. Traffic safety</li> <li>4. Water pollution</li> <li>5. Rural 1 zoning</li> <li>6. Gravel important but there are better sites</li> </ol>	O	Decline Consent
133	Josephine Tucker	<ol style="list-style-type: none"> <li>1. Flood plain and water contamination</li> <li>2. Traffic on narrow roads and 1-lane bridges</li> <li>3. Accelerated erosion of surrounding land</li> <li>4. Backfill issues</li> <li>5. Rural 1 zoning</li> </ol>	O	Decline Consent
134	Camilla Rombouts &	<ol style="list-style-type: none"> <li>1. Significant environmental impact</li> <li>2. Water quality</li> </ol>	O	Decline Consent

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
	Tereapi Williams	3. Traffic congestion/ roads not suitable for trucks 4. Flood damage		
135	Karl Schmidt	1. Lan disturbance/ rehabilitation 2. Noise/ dust 3. Road Usage	S	Grant Consent
136	David Gill	1. Good for Resources	S	Grant Consent
137	William Burnett	1. Employment	S	Grant Consent
138	Steve Holloway - M.A.D. Conservation Services	1. Rural 1 zoning 2. Impact on natural environment 3. Taonga	O	Decline Consent
139	Elizabeth & Paul Daniels	1. Gravel Extraction	O	Decline Consent
140	Javier Nunez	1. Sensitive receiving environment 2. Zoning – industrial activity 3. Productive land 4. Hauora and wairua of the awa	O	Decline Consent
141	Zac Kerdemelidis	1. Local and responsibly sourced aggregate is important 2. Important material 3. Cost	S	Grant Consent
142	Kevin Fourie	1. 15yr timeline is bad for ratepayers 2. Climate Change/ Environmental impacts 3. Flood Plain and Water issues: water breach downstream	O	Decline Consent
143	Te Ātiawa Manawhenua Ki Te Tau Ihu Trust	1. Environmental Impacts 2. Cultural Impacts	O	Decline Consent
144	Te Rūnaānga o Ngāti Rarua	1. Inadequate assessment of cultural effects 2. Water quality 3. Flooding 4. Duration of consent 5. Public access	O	Decline Consent
145	Barry & Linda Evans	1. Operating Hours	S	Grant Consent

Sub no.	Submitter	Issues	Support, Oppose or Neutral	Conditions / relief
		<ul style="list-style-type: none"> <li>2. Environmental Impacts: Water contamination, flood banks, degradation of land</li> <li>3. Property devaluation</li> <li>4. Vehicle Movements and Heavy Traffic</li> <li>5. Flood Risk</li> </ul>		
146	Grant Dennis	1. Heavy traffic and road issues	○	Decline Consent
148	Kenneth James Kirkwall Milligan	1. Noise	○	Decline Consent
149	Christopher Petzold	<ul style="list-style-type: none"> <li>1. Road Safety</li> <li>2. Heavy Vehicles/ traffic issues</li> </ul>	○	Decline Consent



## RESOURCE CONSENTS SOUGHT FOR:

- RM200488 Land use consent to disturb land and rehabilitate for the purpose of gravel extraction within the Rural 1 Zone.
- RM200489 Land use consent to erect signage and establish access via an unformed legal road.

## RECOMMENDED CONDITIONS

### General

1. The consent holder shall ensure that all works are carried out in general accordance with:
  - (a) the application documents received by the Council on 15 June 2020;
  - (b) the further information received on 8 and 10 June 2021;
  - (c) the Noise Management Plan prepared by R Hegley dated May 2021;
  - (d) Plan XX.

Where there is any apparent conflict between the application and consent conditions, the consent conditions shall prevail.

2. The consent holder shall ensure all persons undertaking activities authorised by this resource consent are made aware of the conditions of the consent and ensure compliance with those conditions. A copy of the consent documents shall be kept available on site and shall be produced without unreasonable delay upon request from a servant or agent of the Council.
3. The quantity of gravel and overburden excavated from the areas specified on Plan XX shall not exceed xxx m<sup>3</sup>.

### Review

4. For the purposes of, and pursuant to section 128 of the Resource Management Act 1991 ('the Act'), the Council reserves the right to review this consent annually commencing 12 months from the date this consent is granted, for the purposes of:
  - (a) dealing with any adverse effect on the environment which may arise from the exercise of this consent that were not foreseen at the time of granting of the consent, and which it is therefore more appropriate to deal with at a later stage; and/or
  - (b) requiring the consent holder to adopt the best practical option to remove or reduce any adverse effects on the environment resulting from the exercise of this consent; and/or

- (c) requiring compliance with operative rules in the Tasman Resource Management Plan or its successor; or
- (d) requiring consistency with any relevant regional plan, district plan, national environmental standard or Act of Parliament.

## Lapse and expiry

- 5. Pursuant to section 125 of the Act, this consent shall lapse 5 years after the date of issue of the consent unless either the consent is given effect to, or the Council has granted extensions pursuant to section 125(1A)(b) of the Act.
- 6. This consent shall expire in 10 years on xx/xx/xxxx.

## Bond

- 7. Prior to starting work the consent holder shall enter into a performance bond with the Council. The performance bond shall be for \$40,000.  
  
The sum secured by the bond shall be increased by the annual increase in the consumer price index for each year that the bond required by this condition remains in force, commencing with the first anniversary of the date of issue of the consent and confirmed on each subsequent anniversary. The movements in the consumer price index shall be taken from the published increases available on 31 December following the issue of the consent and on 31 December in each subsequent year.
- 8. The performance bond is to be prepared by the consent holder's Bank or Solicitor and submitted to the Council's Team Leader - Monitoring & Enforcement for approval.
- 9. The purpose of the performance bond required by condition 7 shall be to conduct remedial, repair, or rehabilitation works to the site, stopbank and/or access road, in the event that the consent holder fails to comply with conditions of this consent to the satisfaction of the Council's Team Leader - Monitoring & Enforcement.

### Advice notes

The Council will make reasonable attempts (if practicable in the circumstances) to contact the person identified in condition 11.11(b)(i) who is the Council's principal contact person in regard to this consent, to give the consent holder the opportunity to remedy the matter prior to the Council taking any action.

The consent holder remains liable under the Act for any breach of the conditions of this consent and for any adverse effect on the environment which becomes apparent during or after the expiry of this consent.

## PRIOR TO THE WORK

10. At least five working days prior to earthworks commencing, the consent holder shall contact Ngāti Toa Rangatira, Ngāti Rārua, Te Ātiawa o Te Waka-a-Māui, Ngāti Kuia and Ngāti Tama ki Te Tau Ihu and advise them of the commencement date of the earthworks to provide an opportunity for an iwi monitor to be present when earthworks are started in each area.

### Advice note

The discovery of any pre-1900 archaeological site (Māori or non-Māori) which is subject to the provisions of the Heritage New Zealand Pouhere Taonga Act 2014 needs an application to the Heritage New Zealand for an authority to damage, destroy or modify the site.

11. The Council's Team Leader - Monitoring & Enforcement shall be notified in writing:
- (a) A minimum of 10 working days prior to commencement of work for each Stage; and
  - (b) Prior to the recommencement of work where works have been discontinued for more than 10 working days.

Notification shall include:

- (a) The proposed start and end dates for the period of work; and
- (b) The name and contact details of the following persons:
  - (i) A representative nominated by the consent holder who shall be the Council's principal contact person in regard to matters relating to this resource consent; and
  - (ii) The Site Manager (if not the consent holder's representative).

Should either of the above persons change during the term of this resource consent, the consent holder shall provide the new name and contact details, in writing, to the Council's Team Leader - Monitoring & Compliance within five working days.

## Submissions of plans

12. The consent holder shall, at least 10 working days prior to the commencement of works, prepare and submit a Contour Plan, an Erosion and Sediment Control Plan (ESCP) and a Soil Management Plan (SMP) prepared in accordance with conditions 14 to 16, to the Council's Team Leader - Monitoring & Enforcement for certification. No works shall be undertaken until the Contour Plan, ESCP and SMP have been certified by the Council's Team Leader - Monitoring & Enforcement, unless condition 13 is invoked.

### Advice note

Certification of the Contour Plan and ESCP is in the nature of certifying that adoption of the Contour Plan and ESCP will result in compliance with the conditions of this consent.

13. The following shall apply in respect of condition 12:

- (a) the consent holder may commence the activities in accordance with the submitted plans 15 working days after their submission, unless the Council advises the consent holder in writing that it refuses to certify them on the grounds that it fails to meet the requirements of the condition and gives reasons for its decision; and
- (b) should the Council refuse to certify the plan, the consent holder shall submit a revised plan to the Council for certification. Clause (a) shall apply to any resubmitted plan.
14. The Contour Plan required by condition 12 shall include as a minimum:
- (a) A topographic survey to New Zealand Vertical Datum 2016 (NZVD 2016) of the existing site, with contour intervals at 0.2 metres;
- (b) A topographic survey to NZVD 2016, of the proposed finished levels on site after excavation and recontouring has occurred, with intervals at 0.2 metres.
- (c) A site plan showing the location of property boundaries, surface waterbodies, legal roads, survey benchmarks, and other details as appropriate.
15. The ESCP required by condition 12 shall include as a minimum:
- (a) an aerial image of the site detailing, including the location of:
- (i) property boundaries;
- (ii) surface waterbodies;
- (iii) roads;
- (iv) erosion and sediment control measures; and
- (v) stormwater management measures and the direction of stormwater flows.
- (b) detailed drawings and specifications of all designated erosion and sediment control structures;
- (c) construction timetable for the erosion and sediment control works, excavation, and stabilisation of exposed ground;
- (d) maintenance, monitoring and reporting procedures;
- (e) rainfall response and contingency measures including procedures to minimise adverse effects in the event of extreme rainfall events and/or the failure of any key erosion and sediment control structures; and
- (f) hydrocarbon spill response and contingency measures.

Any substantive changes to the ESCP shall be confirmed in writing by the consent holder and certified by the Council's Team Leader - Monitoring & Enforcement. The changes shall not be implemented until the consent holder is notified of the Council certification.

### Advice notes

For the purposes of this condition, 'substantive changes' refers to changes that materially alter the nature of the ESCP.

The consent holder will ensure the measures contained in the certified ESCP are implemented prior to the works commencing and maintained for the duration of the works.

16. The Soil Management Plan (SMP) required by condition 12 shall include as a minimum:
- (a) Procedures to mitigate the potential effects on soil properties including for:
    - (i) soil removal;
    - (ii) soil storage;
    - (iii) soil placement (including the sequence of soil placement);
    - (iv) transport;
    - (v) the preparation of the receiving surface;
    - (vi) fill (overburden), subsoil and topsoil properties; and
    - (vii) post soil placement management.
  - (b) Procedures to minimise the risk of soil loss and the creation of dust including:
    - (i) during soil removal;
    - (ii) during transport;
    - (iii) during soil storage; and
    - (iv) during vegetation establishment.
  - (c) Procedures to minimise the risk of soil loss from overland flow including:
    - (i) during soil removal;
    - (ii) for soil storage; and
    - (iii) during vegetation establishment.
  - (d) Soil monitoring required including
    - (i) Sampling and analysis of the original soil prior to extraction to provide a base line;
    - (ii) Soil properties (soil indicator) to be monitored following vegetation establishment;
    - (iii) Monitoring frequency; and
    - (iv) Recommended measures should monitoring show a decline in soil quality.

### Site meeting

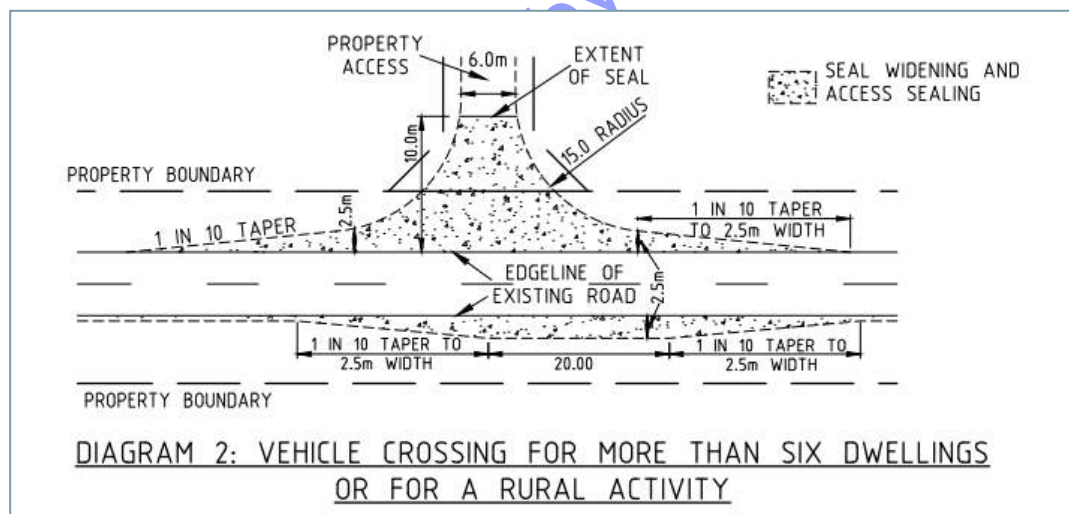
17. The consent holder shall arrange for a site meeting between the consent holder's representative and the Council's assigned monitoring officer, which shall be held on site prior to any works commencing. No works shall commence until the Council's assigned monitoring officer has completed the site meeting.

## Signage

18. Signage shall be installed on Motueka River West Bank Road to provide warning to oncoming vehicles of the potential presence of trucks. As a minimum, permanent warning signs (PW-50) "Trucks Crossing" signs shall be installed on West Bank Road either side of the site entrance, at a position to be confirmed with the Council's assigned monitoring officer.

## Upgrade of vehicle entrance and site access

19. The consent holder shall remove the willow trees north and south of the entrance to the site and undertake trimming on the bank on the eastern side of Motueka River West Bank Road, as identified in the Traffic Concepts report submitted with the application, to improve site access visibility.
20. The consent holder shall undertake ongoing trimming of vegetation to ensure that visibility is not impaired and shall ensure that the sight distances at the intersection with Motueka River West Bank Road meet the minimum requirements set out in Table 4-14 of the Nelson Tasman Land Development Manual 2020 (NTLDM).
21. The existing vehicle crossing at 493 Motueka River West Bank Road shall be upgraded/formed to the standard shown in Diagram 2 of Drawing SD409 in the of NTLDM:



22. The vehicle access shall be formed to a sealed carriage width of 6m from the eastern end of the seal widening and access sealing required under condition 21 up to the bridge approach (approximately 35 m from the edge of the existing seal) to allow for two trucks to pass by each other and avoid any undesirable queuing on Motueka River West Bank Road.
23. Beyond the first 35m from the edge of the existing seal, the proposed access shall be formed to a sealed carriage width of 4.5m with 0.5m gravel shoulders and side drains to drain to existing drain paths and/or soakpits. The access shall be maintained for the duration of this consent.

### Advice note

This consent does not grant access to the excavation area. Site access and management of the tracks should be arranged with the landowner.

24. The consent holder shall make provision for the formation of at least two localised widened areas along the access, formed to NTLDM passing bay standard, to allow for two vehicles to pass by each other.
25. The proposed access shall not connect to the southern end of Peach Island Road, unless requested by the Council.

### Bridge

26. The appropriateness of the existing bridge across the overflow channel (located on Section 1 SO 15112) shall be assessed by a suitably qualified engineer to demonstrate compliance with condition 27.
27. The bridge shall be able to carry Class 1 loads (or higher loads if the applicant proposes to use HPMV trucks for the operation), and any necessary upgrade or replacement to achieve this shall be carried out by the consent holder prior to the bridge being used under this consent.
28. The bridge shall be widened to 4.5m to match the proposed 4.5m access width.

### Survey

29. The consent holder shall survey the boundaries of the unformed legal road and survey benchmarks shall clearly identify the boundaries of the legal road on site.

### Stopbank

30. The location of the toe of the stopbank adjacent to the proposed excavation sites shall be clearly identified and marked on site by a suitably qualified and experienced geotechnical professional or river engineer.
31. A fence shall be erected 20m from the toe of the stopbank on both sides of the stopbank to ensure that works do not encroach into the 20m setback, except for the stopbank crossing (required by condition 33)
32. The construction of any fence within bermland (i.e., on the outer side of the stopbank), including the fence required by condition 31, shall be of a post and wire construction only and, if required by the Council, shall be removed on completion of the works.
33. The consent holder shall form and maintain a ramp over the stopbank to provide vehicle access. The crest of the ramp shall be maintained at the same level as the adjacent stopbank crest immediately up- and downstream of the ramp, to the satisfaction of the Council's Asset Engineer - Rivers.

34. The consent holder shall not block the stopbank, and shall ensure that it is available to the Council's Rivers Engineers at all time for flood monitoring.

### Landscape mitigation

35. Landscaping shall be carried out in accordance with the Canopy Landscape Mitigation Plan, including the following changes:
- (a) All planting lines shall run parallel with river flow;
  - (b) There shall be no planting across/ at right angles to the overflow channel; and
  - (c) All plantings shall be set back at least 5m from the toe of the stopbank.

### Groundwater monitoring to establish background levels

36. The consent holder shall install one dedicated bore upstream and one downstream of the works for groundwater monitoring purposes.

#### Advice notes:

The appropriate bore locations shall be confirmed by the Council's Senior Resource Scientist – Water to account for groundwater flow direction in the area.

37. A minimum of three groundwater samples, at least two weeks apart, shall be taken prior to commencement of any works to establish background levels. The samples shall be analysed by a suitably qualified and experienced person for:
- (a) pH
  - (b) temperature corrected (20 degrees Celsius) conductivity
  - (c) dissolved iron
  - (d) dissolved copper
  - (e) dissolved lead
  - (f) dissolved zinc
  - (g) E. coli

All testing equipment must be calibrated and verified as accurate prior to testing by a suitably qualified and experienced person. All testing shall be at the full expense of the consent holder. Sampling results shall be submitted to Council's Team Leader - Monitoring & Enforcement prior to the commencement of any works.

## ENVIRONMENTAL BOTTOM LINES

### Dust

38. There shall be no noxious, dangerous, objectionable or offensive dust to the extent that the discharge causes an adverse effect at or beyond the boundary of the site.
39. Specific dust control measures described in the application are implemented.



40. No works shall be carried out during periods of high wind (>30km/ per hour). No excavations shall be undertaken if heavy rain or high wind is forecast in the period before measures can be implemented to secure the excavated area and any stockpiles from the effects of overland flows and dust generation.
41. The consent holder shall undertake meteorological monitoring (i.e., wind direction and wind speed) on site and store this data electronically and it shall be made available to the Council's Team Leader - Monitoring & Enforcement on request.

## Water quality

42. The discharge to land shall not result after reasonable mixing any of the following effects in the receiving waters:
  - (a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
  - (b) any conspicuous change in the colour or visual clarity;
  - (c) any emission of objectionable odour;
  - (d) the rendering of fresh water unsuitable for consumption by farm animals;
  - (e) any significant adverse effects on aquatic life.

## DURING WORK

43. There shall be no extraction of gravel from the unformed legal road shown on the plans required by condition 29 above.

## Hours of work

44. Work shall only be carried out between 8:00 am and 5:00 pm Monday to Friday. No operations shall occur on Saturdays, Sundays, public holidays, or between 20 December and 10 January the following year (Christmas holiday period).

## Access and vehicle entrance

45. Access to the site shall only be via the upgraded vehicle crossing at 493 Motueka River West Bank Road.

### Advice note

This consent does not grant access to the excavation area. Site access and management of the tracks should be arranged with the landowner.

## Traffic movements

46. There shall be no more than 30 truck movements per day to and from the site (a return trip being two truck movements). A truck may include a trailer.

47. All vehicles shall observe a speed limit of 20 kilometres per hour when on site, including on the haul road between the vehicle entrance and the excavation site. It is the consent holder's responsibility to inform drivers of this speed limit.
48. All trucks shall be fitted with GPS based speed logging and records shall be supplied to the Council's Team Leader - Monitoring & Enforcement on request.

## Noise

49. The consent holder shall ensure that all activities are designed and conducted, and all equipment used on site is maintained, so that noise generated by activities on site does not exceed an uncorrected noise level of 55 dBA  $L_{10}$  (day) and 70 dBA  $L_{max}$  (night) measured at the notional boundary of any dwelling over a measurement period of 15 minutes during the authorised hours of operation.

### Advice note

Noise shall be measured and assessed in accordance with the provisions of NZS 6802:2008 - Acoustics - Environmental Noise.

50. No processing, washing, crushing or screening of gravel shall be carried out on the site.
51. Works shall be carried out in accordance with the Noise Management Plan prepared by R Hegley and submitted as part of the applicant's further information response on 8 June 2021. In particular,
  - (a) All trucks exporting material from the site shall be fitted with a sound deadening, plastic deck liner.
  - (b) Tonal warning/ reversing alarms on plant on site shall be replaced with broad band alarms.

## Site management

52. Works shall be undertaken in accordance with the certified ESCP and SMP described in conditions 15 and 16 respectively.
53. Topsoil and subsoil shall be stripped and stockpiled separately for the purpose of reuse on site. All soil stockpiles shall be:
  - (a) no more than 3 metre in height;
  - (b) Topsoil stockpiles on berm land shall be formed in rows parallel to the flow of the unnamed stream (overflow channel) and setback at least 20m from the toe of the stopbank;
  - (c) stored on site for no more than 6 months before use.
54. Machinery movement over stockpiled soil is prohibited.

55. With the exception of the topsoil stockpiles noted in condition 53 53(b) above, no backfill or any other material shall be stored or stockpiled on the river side of the stopbank, unless awaiting reinstatement placement.
56. The consent holder shall maintain the site in a clean and tidy manner. Redundant machinery and equipment not required for the operation of the quarry shall be removed from site.
57. All precautions shall be taken to ensure that any dust created by the operations is contained within the work site. Such precautions shall include, but not be limited to, reducing vehicle speeds, the watering of traffic movement areas, and covering stockpiles and trucks as required.
58. All practicable measures shall be undertaken to prevent:
- (a) erosion of the Motueka River berm; and
  - (b) the discharge of sediment to the Motueka River;
- as a result of the works.

#### Advice note

This consent does not authorise the discharge of any sediment to water. Relevant TRMP and / or national environmental standards permitted rules must be met or consent applied for accordingly.

### Refuelling and spill management

59. All machinery shall be maintained and operated in such a manner minimising, so far as practicable, any spillage of fuel, oil and similar contaminants to water or land, particularly during machinery refuelling.
60. No refuelling or machinery maintenance shall be undertaken within 20 metres of surface water (including exposed groundwater).
61. All spills shall be immediately contained and controlled by an approved product and shall be removed from the site for appropriate disposal. Any spills greater than 20 litres shall be immediately reported to the Council's Team Leader - Monitoring & Enforcement.
62. Fuel shall be stored securely or removed from site overnight.

### Excavation

63. The excavation shall occur in strips aligned parallel to the general direction of flood flow across the berm land. No individual strip shall be wider than 30 m.
64. The excavation shall be progressively backfilled so that the maximum size of excavation open at any one time shall not exceed 30 m in width and 100 m in length.
65. The number of excavations open at any one time shall not exceed one, except when the excavation of one strip has been completed and the excavation of a new strip is

commencing, in which case two open excavations are permitted, subject to condition 64 above.

66. All excavation shall be:
- (a) Above mean winter ground water level as detailed on Plan X (mappazzo plan, revised 12 May 2021 showing Mean winter groundwater level); or
  - (b) Above ground water level at the time of excavation;

whichever is shallower.

67. There shall be no excavation or backfilling into groundwater at any time.
68. There shall be no excavation, removal of gravel or other disturbance of land within 20m of the toe of the stopbank.

For the avoidance of doubt, this applies on either side of the stopbank.

## Backfilling

69. During the course of excavations, backfilling shall be undertaken at every possible opportunity. Any excavated area in a particular location shall not remain open for longer than 6 months.
70. Backfilling shall be undertaken in accordance with the certified SMP described in condition 16.
71. Backfilling shall be to the finished levels on site as specified in the Contour Plan required by condition 14.
72. Only the material specified in conditions 74, 76 and 78 below shall be used for backfill. There shall be no disposal of sawdust, large trees, stumps, refuse, cans, bottles, plastics, timber, household rubbish, or liquid waste.
73. Any unauthorised material including household or other undesirable rubbish placed in the excavation, regardless of source, shall be removed by the consent holder and disposed of at an approved site.

## Fill (overburden)

74. The balance of the excavation to 1000mm below finished ground level (FGL) shall be filled with clean and substantially inorganic material. Fill material may only contain organic matter where associated with fill obtained from road cuttings, slip clearance and site excavations. This organic matter shall be thoroughly mixed with the other fill material. If pockets of organic matter are left in the fill, the consent holder may be required to remove the fill and properly mix the fill before replacement.
75. A record shall be kept of all cleanfill used as backfill. The record shall include the following:
- (a) The date of import on site;

- (b) The source of the material;
- (c) A description of the material; and
- (d) The approximate volume of fill.

This record shall be kept available on site, and shall be produced without unreasonable delay upon request from a servant or agent of the Council.

## Subsoil

- 76. The balance of the excavation from 1000mm below FGL to 300mm below FGL shall be filled with clean and substantially inorganic subsoil. Fill material may only contain organic matter where associated with fill obtained from road cuttings, slip clearance and site excavations. This organic matter shall be thoroughly mixed with the other fill material. If pockets of organic matter are left in the fill, the consent holder may be required to remove the fill and properly mix the fill before replacement.
- 77. The subsoil material shall not contain rocks or inert materials such as concrete.

## Topsoil

- 78. The top 300mm – 400mm of fill shall comprise original topsoil stripped from the site and/or imported topsoil of no less quality than that existing on the site.
- 79. The topsoil shall not contain rocks or inert materials such as concrete.
- 80. The placing, spreading, levelling and cultivation of topsoil shall be carried out in a manner that minimises compaction of the topsoil as detailed in the SMP. Any undue compaction that may occur shall be remedied before sowing down occurs.

## Groundwater monitoring

- 81. The monitoring bores required by condition 36 shall be sampled every three months following the commencement of any works to monitor contamination. The samples shall be analysed by a suitably qualified and experienced person for:
  - (a) pH
  - (b) temperature corrected (20 degrees Celsius) conductivity
  - (c) dissolved iron
  - (d) dissolved copper
  - (e) dissolved lead
  - (f) dissolved zinc
  - (g) E.coli

All testing equipment must be calibrated and verified as accurate prior to testing by a suitably qualified and experienced person. All testing shall be at the full expense of the consent holder. Sampling results shall be submitted to the Council's Team Leader - Monitoring & Enforcement within 10 working days of the results being obtained.

82. If the monitoring of parameters 81 81(a) to 81 81(f) shows changes >20% compared to the background levels established under condition 37, all works shall cease, and investigations shall be undertaken to ascertain the cause of these changes.
83. If the monitoring of parameter 81 81(g) (*E.coli*) shows changes by one order of magnitude compared to the background levels established under condition 37, all works shall cease, and investigations shall be undertaken to ascertain the cause of these changes.
84. If the monitoring shows an increase in *E.coli* resulting in the water being unsafe to drink, all works shall cease, and investigations shall be undertaken to ascertain the cause of these changes.
85. If the monitoring required by condition 81 shows that Drinking Water Standards New Zealand (DWSNZ) are exceeded, the Consent hold shall supply drinking water to affected residences.
86. Works shall only recommence once the consent holder has established, to the satisfaction of Council's Team Leader - Monitoring & Enforcement, that the activity is not causing the changes/ decrease in water quality.

### Accidental Discovery Protocol (ADP)

87. In the event of Māori archaeological sites (e.g. shell midden, hangi or ovens, garden soils, pit depressions, occupation evidence, burials, taonga) or koiwi (human remains) being uncovered, activities in the vicinity of the discovery shall cease. The consent holder shall notify the appropriate iwi groups and Heritage New Zealand Pouhere Taonga Central Regional Office (phone 04 494 8320), and shall not recommence works in the area of the discovery until the relevant approvals to damage, destroy or modify such sites have been obtained.

## POST-WORKS

### Site Reinstatement

88. Site reinstatement shall be carried out in accordance with the certified SMP. As a Advice notes: minimum, reinstated areas shall be sown down with a standard rye grass and white clover seed mix in spring or autumn (whichever season occurs first after filling of an excavation strip has been completed)
89. The consent holder shall engage a suitably qualified agronomist to advise on fertiliser application and other soil treatments to encourage effective revegetation.
90. Fertiliser shall be applied following the recommendations of the agronomist to facilitate pasture establishment, increase fertility and promote and maintain even revegetation.

91. In line with the extraction operation, revegetation shall be carried out in a progressive manner. The consent holder's responsibility with regard to revegetation shall not be considered to be met until a complete, healthy, predominantly rye grass/white clover sward has been achieved over the worked areas.

## Reporting & monitoring

92. The consent holder shall maintain a complaint's register, which shall detail the following as a minimum:
- (a) The person responsible for the complaints register and appointment of a nominee who can be contacted in case of concerns/ complaints arising;
  - (b) The location, date and time of the complaint;
  - (c) The nature of the complaint (e.g., noise, dust, vehicle speeds etc.);
  - (d) A description of weather conditions at the time of complaint (notably wind speed and direction as per the meteorological monitoring required by condition 41);
  - (e) Any identified cause of the complaint;
  - (f) The action(s) taken to investigate and if appropriate remedy the issue.
93. The consent holder shall inform the Council's Team Leader Monitoring and Enforcement within one working day of any complaint being received.
94. The complaints register shall be forwarded to the Council's Team Leader - Monitoring & Enforcement on request.
95. A contact number of the nominee detailed in the complaint's register shall be provided to all adjoining property owners and occupiers.
96. The consent holder shall, no more than 20 working days following the completion of each stage of work, notify the Council's Team Leader - Monitoring & Enforcement. Notification shall be in writing and include a visual representation (such as photo or video) of the completed stage of work.
97. The consent holder shall keep a daily record of the volume of gravel extracted, which shall be submitted on a weekly basis to the Council's Team Leader - Monitoring & Enforcement.

### Advice note

Returns are to be submitted in "solid measure". A multiplier of 0.80 should be used to convert "truck measure" to "solid measure".

98. Within 3 months of the completion of all recontouring work on site the consent holder shall forward to the Council's Team Leader - Monitoring & Enforcement a topographic survey to NZVD 2016 of the final levels on site, with intervals at 0.2 metres, as required by Condition 14 14(b).

## Soil monitoring

99. The consent holder shall undertake soil monitoring in accordance with the certified SMP and shall forward the results to the Council's Team Leader - Monitoring & Enforcement.

## Unformed legal road

100. Following completion of the works, the consent holder shall confirm with the Council's Transportation Manager whether:
- (a) the section of unformed legal road ("paper road") used to access the application site shall either be returned to pasture at the consent holder's cost; or
  - (b) retained in its current form.

## ADVICE NOTES

1. Officers of the Council may carry out site visits to monitor compliance with resource consent conditions. The consent holder is liable to the Council for actual and reasonable inspection and monitoring costs associated with this consent.
2. An Approval to Work Permit is required from Council's Transport team to form the unformed legal road (paper road).
3. The consent holder should meet the requirements of the Council with regard to all Building, Safety, and Health Bylaws, Regulations and Acts.
4. Access by the Council or its officers or agents to the property is reserved pursuant to section 332 of the Resource Management Act.
5. All reporting required by this consent should be made in the first instance to the Council's Team Leader - Monitoring & Enforcement.
6. This resource consent only authorises the activity described above. Any matters or activities not referred to in this consent or covered by the conditions must either:
  - (a) comply with all the criteria of a relevant permitted activity rule in the Tasman Resource Management Plan (TRMP);
  - (b) be allowed by the Resource Management Act; or
  - (c) be authorised by a separate resource consent.
7. The Council draws your attention to the provisions of the Heritage New Zealand Pouhere Taonga Act 2014. In the event of discovering an archaeological find during the earthworks (e.g., shell, midden, hangi or ovens, garden soils, pit depressions, occupation evidence, burials, taonga, etc.) you are required under the Heritage New Zealand Pouhere Taonga Act 2014 to cease the works immediately until, or unless, authority is obtained from Heritage New Zealand under Section 48 of the Heritage New Zealand Pouhere Taonga Act 2014.



8. The consent holder must meet the requirements of the Tasman-Nelson Regional Pest Management Plan (2019-2029) when dealing with any pest plants or animals within the subject site.
9. Copies of the Council Standards and documents referred to in this consent are available for viewing at the Richmond office of the Council.

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# Consent Application RM200488, C J Industries Ltd

## Review of Traffic Effects

25/02/2022

Affirm NZ Ltd has been engaged by Tasman District Council to carry out a review of the traffic matters of a resource consent application by C J Industries to establish a gravel extraction operation at Brooklyn off Motueka River West Bank Road. This review is intended to provide an independent expert appraisal of the proposal for the Council Planners Report on the consent application.

### 1. Statement of Qualifications and Experience

My name is Ari Joseph Albert Fon. I am a Director of Affirm NZ Ltd, a private engineering consultancy. I hold a Bachelor's Degree in Civil Engineering with honours from Canterbury University. I am a Chartered Member of Engineering New Zealand (CMEng) and a member of the Transportation Group of Engineering New Zealand.

I established Affirm NZ approximately five years ago, following a long period of employment with Aurecon NZ Ltd, a multi-disciplinary engineering consultancy. For the previous 15-year period I was manager of the Aurecon Nelson office, with specific responsibility for land development and transportation projects.

I am experienced in traffic and transportation engineering and have worked in these disciplines throughout the Nelson, Tasman and Marlborough regions and New Zealand. I have also completed many traffic and access assessments for developments adjacent to both local roads and state highways throughout the Tasman region over the past 15 years. I am an experienced road safety auditor and have completed numerous Safety Audits for Waka Kotahi NZ Transport Agency as well as for Tasman District Council on local road projects.

### 2. Documents Reviewed

For the purpose of this review I have considered the following documents:

1. Resource Consent Application and AEE of 15 June 2020 prepared by Planscapes Ltd, (the Application).
2. The Access Assessment Report of 7 June 2020 prepared by Traffic Concepts Ltd (the Access Report).
3. Summary of the 146 submissions prepared by Susi Bernsdorf Solly of WSP.
4. Applicant's written response to further information request, dated 8 June 2021.

In addition, I have visited the site of the proposed vehicle entrance at 493 Motueka River Westbank Road and have driven the proposed transport route as described on page 11 of the Application and shown in Figure 18 of the AEE.

### 3. Submissions

A total of 148 submissions have been received, of which 112 are in opposition. Of the submissions in opposition, a large number raise traffic matters as a reason for opposition.

A review of the submissions in opposition has been completed to categorise the specific issues raised in relation to traffic matters. The main issues raised were traffic safety, increase in truck traffic, cycle safety including the Great Taste Trail, and the potential for increased damage to the roading infrastructure.

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## 4. Review of Traffic Matters

### 4.1 Access Report Scope

Traffic Concepts Ltd has prepared a report, “*Proposed Gravel Extraction 493 Motueka River West Road, Motueka - Access Assessment Report*”, 7 June 2020 that is appended as Annexure D to the Application. This Access Report provides an assessment of the access requirements for the gravel extraction operation. It covers the proposed vehicle crossing at 493 Motueka River Westbank Road as well as the internal access road requirements.

As the Access Report is limited to these matters only, there has been no detailed traffic assessment provided on the potential effects on road safety and efficiency of the generated truck traffic on Motueka River West Bank Road.

It is understood that a more detailed traffic assessment will be prepared and submitted as part of the Applicants evidence prior to the hearing, that will cover the potential effects on the wider roading network from the generated truck traffic.

### 4.2 Proposed Truck Route

The proposed truck route utilising Motueka Valley Westbank Road, the Alexander Bluff Bridge and the Motueka Valley Highway avoids the townships of Brooklyn and Motueka as well as the narrow Motueka River Bridge on State Highway 60. However, this route includes the relatively low-trafficked section of the Motueka Valley Westbank Road between the entrance to 493 Motueka River Westbank Road and the Alexander Bluff Bridge. According to Council traffic counts from 2019 and 2021, this section of road has daily traffic volumes of approximately 300 vehicles per day.

The Application states that the generated 30 truck movements will be “*1.4 - 4% of the total expected volume of vehicles on this road each day. The proposal’s trip generation will have less than minor effect on the road network as a result.*” However, the actual proportion of generated truck movements will be much higher, at 10% or more of the total traffic. Based on the current proportion of trucks on the road at 9% of total traffic, (from Council traffic count data), the proposed 30 truck movements per day would result in an approximate doubling of truck traffic on the road.

As the effects of the generated truck traffic associated with the activity hasn’t been fully assessed in the Application, it is not certain that there will be a less than minor effect on the road network.

Further information on the effects of the generated truck movements on the road should be included in the detailed traffic assessment to be prepared and submitted as part of the Applicants evidence prior to the hearing

### 4.3 Truck Mix

The Application and the supporting Access Report do not make it entirely clear on the type of trucks that will service the gravel extraction operation, and particularly the split between truck-only units and truck and trailers. The Application refers to “*dump-truck (truck and/or truck and trailer units)*” while the Access Report refers only to “*trucks*”.

Truck and trailer units are longer and heavier than truck-only units and have a wider swept path when manoeuvring. As a result, they take a longer time to complete turning movements than a truck-only unit. The layout of the vehicle crossing onto Motueka River Westbank Road and the alignment of the access onto the bridge will need to cater for the largest vehicle expected to service the operation, namely a truck and trailer.

It is understood that the Applicant has recently advised that all trucks serving the operation will be truck and trailer units. This aspect should be confirmed in the Applicants evidence prior to the consent hearing.

#### 4.4 Speed Environment

For vehicle speeds on Motueka River Westbank Road the Access Report states that *“the operating speed has been measured at 68km/h”* and notes that there is a variance in speeds, with the *“fastest recorded speed being 90km/h and the lowest being 41 km/h”*.

The report doesn't state how this vehicle speed data was obtained. Given the specific speeds stated in the Access Report, it is possible that this data was gathered either from a radar gun or a tube traffic count. If so, it would be useful to know over what duration the data was gathered (ie hours or days) and also whether there is any observed speed differential between northbound and southbound vehicles.

If a tube count was carried out, depending on the duration, this could also provide additional background information on the number of vehicles per day on the section of road past the vehicle crossing at 493 Motueka River Westbank Road.

#### 4.5 Sight Distance at Vehicle Crossing

The appropriate Sight Distance requirement from the NTLDM for a private access is set out in Table 4-14 *Minimum Sight Distance from Private Vehicle Access Points*. This is the same standard used in the Access Report, based on the Austroads guidelines. In short, for an 80km/h approach speed the sight distance requirement is 114m and for the 68km/h operating speed as assessed in the Access Report the sight distance requirement is less than this.

Given the slow manoeuvring speeds of turning trucks using the vehicle crossing, it is agreed that maximising the sight distance available at the crossing is essential.

As outlined in the Access Report, the willow trees on either side of the access partially obstruct the sight distance for vehicles exiting from the crossing. The proposed removal of the willow trees on either side of the access along with trimming of the bank to the south of the access are appropriate measures to maximise the available sight distance for vehicles turning onto Motueka River Westbank Road. The resulting available sight distance will be in the order of that indicated in the Access Report and exceed the required values from Table 4-14 for the operating speeds.

It is noted that the extent of trimming of the bank to the south, and therefore improvement in the available sight distance, will be limited by the location of the road reserve boundary and the access and fences.

The willow tree removal and bank trimming to improve sight distance at the vehicle crossing should be made a Condition of consent.

#### 4.6 Vehicle Crossing Standard

There is limited discussion in the Application and the Access Report of the level of physical upgrade required to the existing vehicle crossing to the property at 493 Motueka River Westbank Road, to make it suitable for the truck traffic that will be generated by the proposed activity.

The Application states that the *“site's access and vehicle crossing will be upgraded to meet the requirements of the NTLDM (for 2-6 users in the Rural zones).”* As the access is intended to be used by up to 15 trucks each day making a return trip, the upgrade needs to specifically cater for truck turning movements.

The recommended layout is to the Diagram 2 standard of Drawing SD409 in the NTLDM, including seal widening and sealing of the access to a distance of 10m from the edge of seal within the property and tapering to 6m width.

As the truck and trailer units will have a wide swept path, it is recommended that the 6m width is continued up to the bridge. This would allow for two trucks, or other vehicles, to pass by each other within the access if necessary and avoid any undesirable queuing on West Bank Road.

It is recommended that the vehicle crossing upgrade works are made a Condition of consent.

#### 4.7 Access Formation

It is proposed to form the access along the paper road to a sealed width of 4.5m, in accordance with the NTLDM standards for an access serving 2-6 users. It is understood that this standard has been agreed to in principle with Council with the inclusion of 0.5m sealed shoulders and provision for drainage in the form of side drains on both sides. This standard is considered acceptable for the proposed activity-generated truck traffic.

The 4.5m width isn't sufficient to allow for two vehicles to pass by each other. While truck movements will be relatively low throughout the course of a typical day, there may be occasions where trucks and or other vehicles servicing the operation are using the access and need to pass by each other. It is therefore recommended that the Applicant allows for the formation of some localised widened areas, to Council passing bay standard, to allow for two vehicles to pass by each other.

#### 4.8 Tasman Great Taste Trail

The Tasman Great Taste Trail route runs as an on-road section along the Motueka River Westbank Road. There is no off-road alternative route for any cyclists using this section of the Trail, so the generated truck traffic from the gravel extraction operation would increase the number and frequency of trucks passing by any cyclists that were using the e approximately 4.3 km length of the trail between 493 Motueka River Westbank Road and the Alexander Bluff Bridge.

The potential effects of the proposed activity, particularly the generated truck traffic, on users of the Tasman Great Taste Trail hasn't been discussed in either the Application or in the Access Report. This matter should be addressed by the Applicant in the additional traffic assessment to be prepared prior to the consent hearing.

#### 4.9 Existing Bridge

Access to the gravel extraction operation is proposed via an existing vehicle bridge over the Peach Island overflow channel. The Application states the *"appropriateness of this bridge will be assessed by a suitably qualified engineer and any necessary upgrades will be undertaken prior to access establishment or use"*.

The bridge will need to carry minimum Class 1 loads and potentially higher loads if High Productivity Motor Vehicles (HPMV) trucks are intended to be used for the activity. It is understood from Council information, obtained when the bridge was assessed for suitability of carrying trucks for river protection works, that it is unlikely to have been designed for Class 1 loads.

In addition, the bridge width should match that proposed for the access, namely 4.5m width. It is currently approximately 3m wide.

#### 4.10 Signage

As well as any required Health and Safety and Hazard signage required for the operation, signage should also be installed on Motueka River Westbank Road to provide warning to oncoming vehicles of the potential presence of trucks. As a minimum, permanent warning signs (PW-50) "Trucks Crossing" signs are recommended on Westbank Road either side of the vehicle entrance, at positions to be confirmed with Council. Signage should be included as a Condition of consent.

## 5. Assessment Criteria in Rule 16.2.2.6 (Transport)

From page 18 on, the Application discusses to the matters over which Council has restricted its discretion under Rule 16.2.2.6. The response provided in the Application for Access and Vehicle Crossings (Items 1 to 5), Parking Areas

(Items 6 to 10), (Roads (Items 11 to 15), and Traffic Effects (Items 16 to 22), has been reviewed and comment on specific items is provided below.

5.1 (1) The location and design of on-site access and vehicle crossings, including dimensions, gradient, surface standard and any effect on the safety and efficiency of traffic on the adjoining road

The Application states that *“the access and vehicle crossing should be upgraded and formed to meet the requirements of the Nelson Tasman Land Development Manual (NTLDM) or the TRMP, whichever is preferred by Council.”*

As discussed previously, it is recommended that the vehicle crossing is formed to the Diagram 2 standard of Drawing SD409 in the NTLDM, including widening and sealing of the access to a distance of 10m from the edge of seal within the property and tapering to 6m width. Further, it is recommended that 6m width should continue up to the bridge within the throat of the access to provide a 6m carriageway width up to the bridge.

5.2 (16) The effects of the design of the road and its traffic flows and types on the adjoining activity

For this Item the Application states, *‘The road’s classification as a collector road indicates that the road is likely to carry traffic volumes in the 1,000 to 3,000 vehicles per day range. For this reason, it is considered that the road is able to cater for the increased traffic and type of vehicles associated with the proposal.’*

It is understood that the above statement is specific to Motueka Valley Westbank Road, which is classified as a Collector Road. However, this road currently carries traffic volumes significantly less than 1,000 to 3,000 vehicles per day, particularly over the section that will be used for trucks travelling to and from the site. On this section of the road, the most recent Council traffic counts from 2019 and 2021 show daily traffic volumes of approximately 300 vehicles per day.

The TRMP classification of Motueka Valley Westbank Road does not in itself indicate the suitability of the road to cater for the increase in daily truck movements as a result of the gravel extraction operation. This matter hasn’t been fully assessed in the Application. Further information on the effects of the generated truck movements on the road should be included in the detailed traffic assessment to be prepared and submitted as part of the Applicants evidence prior to the hearing.

5.3 (18) The potential effect of the activity on the safety and efficiency of the road network.

The Application states that *‘Forestry harvesting traffic is similar in scale to this proposal and log trucks have been able to enter/exit this road network safely and effectively in multiple locations along the Motueka Valley, including recent harvesting only 650m south of the proposal’s access .’*

Forestry harvesting operations occur only very infrequently for a particular block of land. In addition, due to their limited duration, harvesting operations often utilise temporary traffic management with signage and temporary speed limits. As such, these operations aren’t directly applicable to the daily generation of truck movements that will result from the gravel extraction operation.

No assessment has been provided on the potential effect of the activity on the safety and efficiency of the roads comprising the proposed truck route. This should be covered in the more detailed traffic assessment to be prepared and submitted as part of the Applicants evidence prior to the hearing.

5.4 (19) The effects of trip generation.

The Applicant states that the overall estimated vehicle movements associated with the extraction operation will amount to *“only 1.4 - 4% of the total expected volume of vehicles on this road each day. The proposal’s trip generation will have less than minor effect on the road network as a result.”*

However, as the current volumes on Motueka River Westbank Road south of the site are in the order of only 300 vehicles per day, the proportion of generated vehicle movements will be much higher, at 10% or more of the total traffic. Based on the current proportion of trucks on the road at 9% of total traffic, (from Council traffic count data), the proposed 30 truck movements per day would result in an approximate doubling of truck traffic on the road.

As the effects of the generated truck traffic associated with the activity hasn't been fully assessed in the Application, it is not certain that there will be a less than minor effect on the road network. This should be addressed in the more detailed traffic assessment to be prepared and submitted as part of the Applicants evidence prior to the hearing.

5.5 (20) Traffic effects beyond the site, including effects on carriageway width, alignment and intersections.

The Application states that *"The proposal will have less than minor traffic effects beyond the site."* This is based on the fact that logging trucks have been *"safely using this stretch of road in the past, without the need to widen or straighten the road to improve safety"*.

As discussed above, logging trucks do not provide a direct comparison with truck movements resulting from the gravel extraction operation as the two activities differ. Further, there is no supporting information provided in the Application regarding the safety of the section of road intended to be used for the truck route.

Again, similar to other items discussed above, further information is required in the form of a more detailed traffic assessment to verify that the proposal will have less than minor traffic effects beyond the site. This should be addressed in the information to be prepared and submitted as part of the Applicants evidence prior to the hearing.

The Application response to Item(20) refers to Figure 16.2C standard proposed for the upgrading of the vehicle crossing. However, as this standard has now been superseded, it is recommended that the vehicle crossing be upgraded to meet the Diagram 2 standard of Drawing SD409 in the NTLDM.

## 6. Summary and Recommendations

### 6.1 Summary

The Traffic Concepts Ltd Access Report appended as Annexure D to the Application, provides an assessment of the proposed vehicle crossing at 493 Motueka River Westbank Road as well as the internal access road requirements. The recommendations of the Access Report for improvements to the vehicle crossing and access works are generally accepted.

The additional truck traffic generated by the proposed gravel extraction operation will produce a noticeable increase in truck movements, particularly on the lower volume section of Motueka River Westbank Road between 493 Motueka River Westbank Road and the Alexander Bluff Bridge.

There has been no detailed traffic assessment provided on the potential effects on road safety and efficiency of the generated truck traffic from the activity on the roading network. As a result, it is not certain that there will be *a less than minor effect* with regards to traffic matters as stated in the Application.

### 6.2 Recommendations

#### Detailed Traffic Assessment

A more detailed traffic assessment should be prepared and submitted as part of the Applicants evidence prior to the hearing, to substantiate the statements made in the Application that the effects of the proposed activity on traffic matters are less than minor. This assessment should be submitted as part of the Applicants evidence prior to the hearing.



## Vehicle Crossing to the property at 493 Motueka River Westbank Road:

The vehicle crossing should be upgraded to the Diagram 2 standard of Drawing SD409 in the NTLDM, including seal widening and sealing of the access to a distance of 10m from the edge of seal within the property and tapering to 6m width. In addition, the 6m width should be continued up to the bridge to allow for two trucks, or other vehicles, to pass by each other within the access if necessary and avoid any undesirable queuing on West Bank Road.

The willow tree removal and bank trimming to improve sight distance, as outlined in the Access Report, should be implemented.

## Access Road

The portion of access to be formed along the existing paper road is to be constructed to a 4.5m sealed width, along with 0.5m sealed shoulders and provision for drainage in the form of side drains on both sides.

Provision should be made for the formation of localised widened areas, to Council passing bay standard, to allow for two vehicles to pass by each other.

## Bridge

The bridge to be assessed by a suitably qualified engineer for its suitability to carry Class 1 loads or potentially higher loads if HPMV trucks are intended to be used. Any necessary upgrade or replacement structure should be constructed prior to access establishment.

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## Qualification and Experience

I am employed by Tasman District Council as Senior Resource Scientist for Land Use and Soil. I have been in this position since May 2021. Prior to this I worked for Fonterra for nine years as their Sustainable Dairy Advisor for the Tasman and Marlborough Region. Previous to that I was employed for eight years by Summit-Quinphos (which later became Balance Agri Nutrients) as their Nutrient Management Consultant for the Buller and Tasman Region.

I have a Bachelor of Science Degree, Geography Major from the University of Canterbury. I have also completed the following certificates:

- Advanced Soil Conservation (Massey University, 2020)
- Agricultural Green House Gas Emissions and Management (Massey University, 2017)
- Advanced Farm System Modelling (AgriOne, Lincoln & Massey University, 2016)
- Dairy Production Systems (AgriOne, Lincoln & Massey University, 2013)
- Farm Dairy Effluent: System Design and Management (Massey University, 2012)
- Intermediate and Advanced Sustainable Nutrient Management (Massey University, 2007/2010)

I am a Certified Nutrient Management Consultant, a Certified Agricultural Greenhouse Gas Consultant and have Commissioner Certification (2020).

I have visited the site of interest and the environs.

I acknowledge that this is a consent authority hearing. I have read and agree to comply with the Code of Conduct for expert witnesses as set out in the [Environment Court Consolidated Practice Note 2014](#).

## Observations and Clarifications Following 30<sup>th</sup> September 2021 Site Visit:

The site of interest i.e., Peach Island, is part of the Eastern Lowland Major River Valley Land Type (Lynn, 2012) formed on Holocene-aged river alluvium. As to be expected, Peach Island being an old riverbed, there is a high degree of variation in gravel and other, smaller grain sediment deposits. The loosely assorted regolith is the parent material of the soils observed on-site which, following the New Zealand Soil Classification (NZSC), were identified as Fluvial Recent soils. Fluvial Recent soils that form in sediments deposited by flowing water, are relatively young (a few thousand years), and may be weakly developed. However, in a site-specific context, the young age of the soils was not seen as a productivity limiting factor. As previously described by Molloy in 1998, fluvial recent soils in the Tasman District are among the most-valued soils for horticultural production, and this includes the soils of Peach Island. Note: Following the old, now outdated New Zealand Genetic soil classification Peach Island soils are named Riwaka and Motueka soils.

Consolidating the site observations with what was provided in the consent application report and received from the assessment of other soil and land scientists (i.e., Bernard Simmonds and Andrew Burton), we like to highlight that:

The Peach Island sites meets the definition for highly productive land as defined in the TRMP.



**Figure 1** shows the location of interest and the two sites that were inspected during the field visit. A visual assessment found that the topsoil horizon was deeper at soil pit 1 (site x1) than found at pit 2 (x2). The soil in pit 2 also comprises of more sand and gravel than the soil in pit 1.

To re-iterate, the TRMP states in its Chapter 2 (2/16) that high productive value in relation to land, means that this land has to meet a combination of at least two of the following criteria, one of which must be (a):

- a) a climate with sufficient sunshine that supports sufficient soil temperature
- b) a slope of up to 15 degrees
- c) imperfectly-drained to well-drained soils x1 x2 2
- d) soil with a potential rooting depth of more than 0.8 meters and adequate available moisture
- e) soil with no major fertility requirements that could not be practicably remedied
- f) water available for irrigation

If (a) and one other factor is met, the land can be seen as capable of producing crops at a high rate and/or across a wide range.

Applying the above definition to the 134 Peach Island site, it was found that:

- a) the climate criterion includes sufficient sunshine to support a suitable soil temperate regime
- b) the slope angle is less than 15 degrees
- c) the soils are generally well-drained
- d) the rooting depth varies depending on stoniness and the soil horizon depth i.e., the proximity to the soil surface. This finding is reflected in LandVision consent application report, which uses the LUC framework to describe the productivity of the land. The report classified the land parcel of interest as LUC class 5 and indicated that rooting depth could be a potentially limiting factor. Conversely, areas identified as Class 1-4 have lesser rooting depth barriers.
- e) fertility requirements can be met e.g., via fertilization and soil management
- f) the site visit confirmed that the land is used for irrigation and water is available via the Motueka river in close proximity to the site

Based on the TRMP definition, the 134 Peach Island site meets five out of the six relevant factors for productive land, and in some areas of 134 Peach Island even all six criteria (e.g., site x1, **Figure 1**).

The combination of suitable factors shows that the land is capable of producing crops at a high rate and/or across a wide range. The potential of the land is further evidence by neighbouring areas, where there are orchards and horticultural production. Since soil is a continuum and rapid changes in soil type, soil and landscape features are not anticipated at the southern end of Peach Island, this productive potential will prevail also on the site of interest.

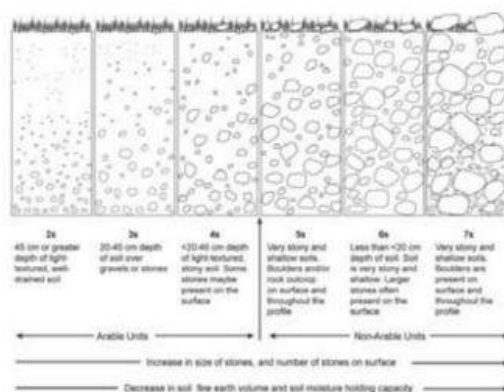
On the note of rooting depth:

Consent applicant and LandVision consultant pointed out that rooting depth would be a major limiting factor which would be worthwhile further exploring (**Figure 2**).



**Figure 2:** The LandVision report provided the following figure, LUC units included.

Assumed that the LandVision consultant referred the evaluation of rooting depth on the LUC Survey Handbook (3rd edition, see p. 80 therein), the rooting limitation must have been assessed using the following framework



**Figure 3:** Relationship between LUC class, soil depth, and degree of stoniness.

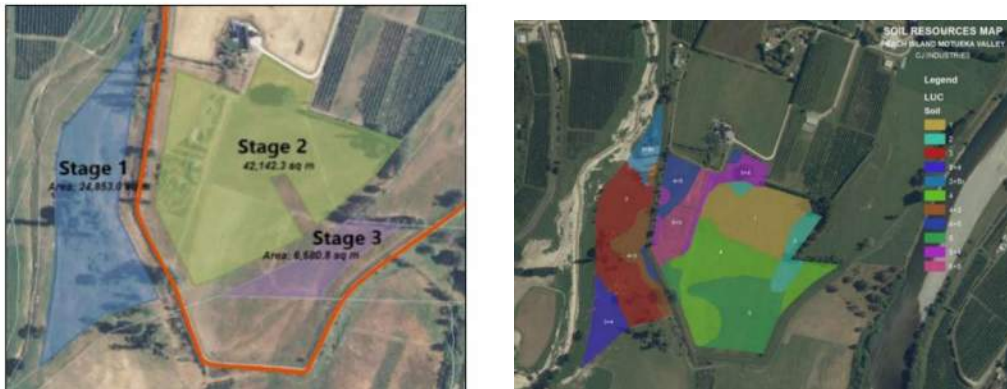
According to **Figure 3** and the LUC survey handbook, the areas identified as LUC class 5 and 6 are characterized by a stoniness apparent close to the surface of the soil. For LUC class 6 stones would be visible at less than 20 cm depth of the soil. The LUC classification was reflected in the field, particularly at soil pit x2.

However, as evident in the whole of the Tasman Basin, the stoniness of fluvial recent soils can be overcome by land management and crop selection, and therefore is not per se a productivity excluding

or productivity-compromising criterion. To summarise: We agree to the observation of the LandVision report that soil rooting depth may be limited at the site of interest. However, given that the 134 Peach Island site meets at least five out of the six TRMP criteria, the land is seen as productive and hence, land-based gravel extraction not recommended.

Some further observations:

Contradictions were found. I.e., soil pit x2 as looked at during the on-site visit is not part of the proposed gravel extraction area (Fig. 4).



**Figure 4:** The proposed stages (1-3) of land-based gravel extraction on 134 Peach Island do not cover soil pit x2 as was presented by the consent applicant and the LandVision consultant in the field. Using soil pit x2 as a pivotal argument for the lower productive quality of the land appears void.

Furthermore, we like to highlight that if land-based gravel extraction was to occur, the land would have to be reinstated in such a way that its high productivity was not compromised. As reinstating land productivity even under highly controlled conditions on a mature soil with well-structured soil properties (not fluvial recent soils with properties that make them particularly prone to damage from disturbances, like gravel extraction) is not easily possible (positive examples of other sites do not exist!), we recommend refraining from land disturbance on 134 Peach Island.

The consent application does not provide enough detail on how land productivity is intended to be reinstated and concerns exist that the suggested measures would not be sufficient enough to retain the existing productivity or versatility of land and soil, or even mitigate the risk of contaminants associated with the back-fill to leach into the groundwater (see Groundwater Quality Assessment of the application, Envirolink Report).

Because of the sensitivity of the soils on Peach Island to be damaged from disturbance, and the high productive values they presently offer, it is not advised that gravel extraction can take place without significant adverse effects at these sites (even with the controls you have proposed).

Richmond, 18<sup>th</sup> October 2021

## Addendum and Comments on Draft Soil Management Plan

The applicant has provided a Draft Soil Management Plan, prepared by Dr Reece Hill. The draft report was provided on 17<sup>th</sup> February 2022 to assist Council in its own assessment for the purpose of preparing this s42A report. It is understood that the final version of this report will be provided as part of the applicant's evidence prior to the hearing.

I have reviewed the Draft report and have the following comments.

### Soil characteristics and assessment of productive potential:

Only the area inside the stop bank is being referred to in my comments, as the area outside the stop bank is seen as not suitable for agricultural land development other than extension grazing due to flood risk. For reference this excludes the land units defined as LUC 3w1 and LUC 4w3, as these are outside of the stop bank.

There is agreement that the site (inside the stop bank) can be classified as being of high productive value when applying the Tasman Resource Management Plan (TRMP) definition.

There is further agreement that it is the shallow and varying depth to gravel that is the soil limiting factor (rooting depth) which drives the LUC classification and as such divides the site into LUC 3s1 – 6s1. Generally, LUC 1-4 are seen as suitable for arable cropping with multiple land use suitability.

In addition to the TRMP definition of land with high productive value and the LUC classification as used by LandVision, Dr. Reece Hill applied soil and land characteristics to the Productive Land Classification (PLC).

LUC unit	Criteria													PLC Land class
	Climate qualities					Topography		Soil						
	Altitude	Length of growing season	Heat over summer	Rainfall	Wind	Slope (degrees)	Orientation (North/South)	Fertility	Water Holding Capacity	Rooting depth (m)	Erosion	Structure/texture	Drainage & Permeability	
3s1	A	A	A	A	A	A	A	A	A	F	B	A	A	F
4s1	A	A	A	A	A	A	A	A	A	F	B	A	A	F
5s1	A	A	A	A	A	B	C	D	A	F	B	A	H	H
6s1	A	A	A	A	A	B	C	D	A	F	B	A	A	F

**Figure 1** Extract from Table x3 PLC criteria for pre gravel extraction LUC units on the Peach Island Road site (Hill, R. Draft Report)

PLC land classes F and H are not classified as being versatile. Suitable land uses for F is seen as extensive pastoral, whereas H is seen as nonproductive.

In his report, Dr Hill used the lowest classed attribute to determine the final PLC class. As such it is the rooting depth limitation that results in the overall PLC class (except for LUC 5s1, where it is drainage class).

According to the area assessed by LandVision: LUC3s1 and 4s1 make up for 4.78 ha of area within the stop bank, while LUC 5s1 and 6s1 make up 2.09 ha. Most of the land classified as LUC5s1 is however outside of the area to be used for gravel extraction.

According to the Dr. Hill's application of the PLC classes, most of the land to be used for gravel extraction within the stop bank is PLC class F due to a rooting depth limitation.

Andrew Burton (former Resource Scientist for Land and Soil at TDC) stated in his comments (email: 20/09/2021) that *'for areas of land where gravel extraction might be acceptable, major limitations to*

*its uses have to exist*'. Although the PLC class for the land is classified as F by Dr Hill, this is due to one single limitation, i.e., rooting depth. Additionally, historic photographs suggest that horticulture had been established on this block. This poses the question whether the rooting depth limitation is major enough to reduce the productive potential of the soil to a degree that might make it acceptable for gravel extraction.

Albeit not a large portion of the land within the stop bank on which gravel extraction is to occur, 5s1 land is classified by Dr Hill as H = non-productive. This land is currently used for pastoral grazing, which is clearly a productive use of this land. This suggests that the way in which the PLC has been determined does not accurately reflect observations on the ground and may be due to the classification criteria for a single attribute being weighted to highly against all criteria.

Under Table 2 of page 12 of the *Classification System for Productive Land in the Tasman District Agriculture NZ (MAF) 1994* it states: '*NB: No single factor can be taken in isolation. A number of factors are considered when deciding on the classification of a particular land unit. The final assessment is made using professional judgement.*'

As such, taking into account a number of factors: I maintain that the PLC class to be assigned to this land should be B or C for land units 3s1 and 4s1, and C or D for 5s1 and 6s1. Land classes A-C are equal to LUC 1-3 and as such seen as versatile and highly productive.

Further, the comment refers to the classification of a land unit. There is no definition of a land unit in the 1994 PLC Report. The way it has been applied by LandVision and Dr Hill is, that a land unit changes whenever one single attribute differs. I question whether that is the practical reality on the ground. Observations across the Tasman District show that despite variations in texture and associated soil properties, crop types are not necessarily different or even mirroring below-ground soil characteristics. As such and at a broader scale for policy making purposes, Peach Island is classified using the PLC 1994 as Class A.

Dr Hill has been contracted by TDC to review the PLC 1994 and has developed a new PLC. The 2021 PLC has not yet been fully adopted by TDC. It does classify Peach Island as class B1 land. This further strengthens the argument that the land unit subject to this application (Stage 2 & 3) has high production potential.

#### Assessment of Effect:

The soil management plan explains effective re-establishment of the soil on the gravel extraction site.

For this to be successful and have only minor effects, key concepts must be adhered to, these are:

- careful pre-planning
- adherence to the guidance provided in the soil management plan (the soil management plan comprises three individual soil management plans each addressing a different risk)
- training of all staff involved
- ensure appropriate contour
- careful removal and storage
- careful placement of the fill and soil material
- ensuring new fill and soil material is not degraded or compacted
- careful stock and machinery management to avoid further compaction

According to Dr Hill, if the reinstatement of soil follows

- the sequence as detailed in his plan



- careful management as explained in the three management plans
- removal of other significant barriers such as roots and stones
- maintaining slopes are less than 5 degrees

then the land may be classified as LUC 2.

In principle, this may be correct as the limiting criteria, which is rooting depth, would have been removed by removing the 'gravel barrier'.

To my knowledge there are two local reports available on soil restoration post gravel extraction. The Ranzau Report as quoted in Dr Hills Soil Management Plan and the Waimea West Report (Campbell, I. 2017 *Report on soil restoration at Staplegrove Farm gravel extraction site, Waimea West, Nelson*). In both examples, soil restoration was not successful, and the productive potential of the land post gravel extraction was compromised.

As mentioned above, the three different draft management plans have to be followed carefully for successful reinstatement of the soil.

Whilst individually these management plans may be implementable, when having to balance all three at once, there are areas of contradiction. This means that it may not be possible to successfully follow the soil management plan guidelines and as such successfully reinstate the soil to an equal or better productive outcome.

The draft soil management plan for effect on soil properties describes how the gravel can be extracted and how soil is to be backfilled. It gives guidance on how to mitigate potential effects on soil properties which could adversely affect the land productive potential as seen in the Ranzau soil gravel extraction (McQueen DJ. 1983) report (the Ranzau report). The main issues identified in this report were attributed to soil compaction and loss of soil structure, which occurred while re-spreading when the soil was not dry. The Ranzau report concludes that soil should only be handled in dry conditions.

Conversely, due to the risk of dust, the soil management plan for minimising soil loss due to dust, says that removal of soil needs to be avoided in dry/ excessively dry conditions. What is considered as 'dry' or 'too dry' is open to interpretation.

Heavy and intensive rain events are frequent in the region and soil loss from overland flow is a real risk. Thus, avoiding removing soil during or ahead of heavy rainfall and minimizing the period that soil is stockpiled are conditions written into the management plan.

Wording in the management plans is also not certain. Wording of 'can be', 'recommended' and 'should ideally', particularly in the Fill, Subsoil, Topsoil properties section and overview of restored soil section of the draft plan need to be replaced to give stricter guidance and less room for interpretation as to what material needs to be used to achieve the same or better productive soil/land criteria.

The contradictions between the individual draft management plans, coupled with general uncertain wording, reduces confidence in that the land can be reinstated, and its production potential restored.

Finally, Dr Hill concludes careful soil management throughout the operation and following reinstatement of the land will reduce impacts on soil properties and that these impacts are likely to only be short-term. Long-term, the land would remain productive at a similar level as the original soil and will have similar, or potentially greater soil versatility than the original soil pre-gravel extraction.

I would like Dr Hill to detail and scale the impacts on soil properties and define the scales of short- and long-term.

References:

Agriculture New Zealand (1994) *Classification system of productive land in Tasman District* Contract report prepared for Tasman District Council by Agriculture New Zealand, MAF, Richmond, Nelson

Campbell, I (2017) *Report on soil restoration at Staplegrove Farm gravel extraction site, Waimea west*, Nelson Land & Soil Consultancy Services, [iaincampbell@xtra.co.nz](mailto:iaincampbell@xtra.co.nz)

Lynn IH, Manderson AK, Page MJ, Harmsworth GR, Eyles GO, Douglas GB, Mackay AD, Newsome PJF. (2009) *Land Use Capability Survey handbook – a New Zealand handbook for the classification of land* 3<sup>rd</sup> ed. Hamilton, AgResearch; Lincoln, Landcare Research; Lower Hutt, GNS Science

McQueen DJ. (1983) *Land reclamation following gravel extraction on Ranzau soils, Nelson*. New Zealand Soil Bureau Scientific Report 58. Government Printer, Wellington

Molloy, L (1988) *Soils in the New Zealand Landscape – The living Mantle* Mallinson Rendel Publ., Wellington

**LUC Classification:**

The emphasis in the LUC system was conservation rather than production, particularly related to soil erosion.

Focus of LUC was on forestry to pastoral to arable, this means that the LUC system is not reliable in ranking land types for horticulture.

Horticulture is a significant land use in Tasman.

The LUC system is a national system of classes, this means land can be compared to other land in New Zealand but it does limit the value of use within the region.

The LUC system does not consider availability of water and advances in irrigation technology. (Ranzau soils are classed as unsuitable for crop production due to the presence of stones: the presence of stones in combination with climate and irrigation is what makes Ranzau soils highly productive)

The LUC does not consider economic input such as drainage, fertiliser, irrigation ct.

Increasing limitations to use ↓	LUC Class	Arable cropping suitability†	Pastoral grazing suitability	Production forestry suitability	General suitability	↓ Decreasing versatility of use
	1	High ↓ Low	High ↓ Low	High ↓ Low	Multiple use land	
	2					
	3					
	4					
	5	Unsuitable	Low	Low	Pastoral or forestry land	
	6					
	7					
	8		Unsuitable	Unsuitable	Conservation land	

1. Rock type
2. Soil
3. Slope angle
4. Erosion type and severity
5. Vegetation cover

**TDC PLC 1994:**

Range of enterprises that could be sustained on a land unit	TDC Class							
	Very Flexible ————— Inflexible							
	A	B	C	D	E	F	G	H
Very Intensive Horticulture	Shaded							
Semi-Intensive Horticulture	Shaded	Shaded						
Intensive Cropping	Shaded	Shaded	Shaded					
Cropping	Shaded	Shaded	Shaded	Shaded				
Intensive Pastoral	Shaded	Shaded	Shaded	Shaded	Shaded			
Extensive Pastoral	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded		
Production Forestry	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	
Non Productive	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded

**Table 6. Land suitability classes and Land use versatility (PLC) class based on the Webb et al. (2011) recommendations.**

Range of enterprises that can be sustained on a land unit	PLC Class									
	Very versatile → Not versatile									
	A	B1	B2	C	D	E1	E2	F	G	H
Very Intensive horticulture	Shaded									
Intensive horticulture	Shaded	Shaded								
Intensive horticulture poorly drained	Shaded	Shaded	Shaded							
Intensive cropping	Shaded	Shaded	Shaded	Shaded						
Cropping	Shaded	Shaded	Shaded	Shaded	Shaded					
Intensive pasture "dairy"	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded				
Intensive pasture "other"	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded			
Extensive pastoral	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded		
Production forestry	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	
Non Productive	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded

Table 24. Criteria and class value ranges for PLC Option 2.

PLC class	Criteria												
	Climate qualities					Land qualities							
	Altitude AMSL (m)	Mean annual soil temperature (°C)	Frost free period (days)	Mean annual rainfall (mm/yr)	GDD10 (days)	Low fertility soil (soil series)	Potential rooting depth (m)	Profile readily available water (mm)	Soil drainage class	Salinity class	Slope (degrees)	Erosion risk	Flood frequency in years in class)
A	na	> 14.5	>200	600 - 1200	≥ 800	Exclude "Dun"	> 0.9	≥ 50	≥ Imperfect	≤ Very low	≤ 5	Na	≤ 1 in 20 (≤ 3)
B1	na	> 14.5	>200	600 - 2000	≥ 800	Exclude "Dun"	> 0.6	≥ 50	≥ Imperfect	≤ Low	≤ 15	≤ Moderate* ESC = 1; exclude LUC 4e-8e	≤ 1 in 20 (≤ 3)
B2	na	> 14.5	>200	600 - 2000	≥ 800	Exclude "Dun"	> 0.6	≥ 50	≥ Poor*	≤ Low	≤ 15	≤ Moderate* ESC = 1; exclude LUC 4e-8e	≤ 1 in 20 (≤ 3)
C	na	> 14.5	>200	600 - 1600	≥ 800	Exclude "Dun"	> 0.15	≥ 25	≥ Imperfect	≤ Low	≤ 15	≤ Slight* ESC = 1; exclude LUC 3e-8e	≤ 1 in 20 (≤ 3)
D	na	> 12	>200	800 - 2400	≥ 800	Exclude "Dun"	> 0.45	na	≥ Poor	≤ Medium	≤ 15	≤ Moderate* ESC = 1	≤ 1 in 10 (≤ 4)
E1	na	> 9	>200	800 - 3200	≥ 800	Exclude "Dun"	> 0.45	≥ 75	≥ Poor	≤ Medium	≤ 15	≤ Slight ESC = 1	≤ 1 in 5 (≤ 5)
E2	na	> 9	na	na	na	Exclude "Dun"	> 0.45	≥ 50	≥ Poor	≤ Medium	≤ 20	≤ Moderate ESC = 1, 2	na
F (old G)	< 600	> 8	>200	800 - na	na	Exclude "Dun"	> 0.45	≥ 25	≥ Imperfect	≤ Low	≤ 28	≤ Very High ESC ≤ 3; exclude LUC 8e	na
G (old F)	< 1200	> 8	na	na	na	Exclude "Dun"	> 0.2	na	na	≤ High	≤ 35	≤ High ESC ≤ 3; exclude LUC 8e	na
H	na	na	na	na	na	na	na	na	na	na	na	na	na

\* Assumes increased erosion risk associated with likely cultivation (Webb et al., 2011); # Assumes land can be readily drained and resulting soil drainage is equivalent to or better than imperfect (Webb et al., 2011); na = not applicable.

All TDC GIS applications – Localmaps / ArcGIS portal are and have been unavailable due to IS version upgrades

As the last two attachments are generated through (and saved on) the ArcGIS portal, these will be made available for 5.00 pm Monday 7 March 2022.