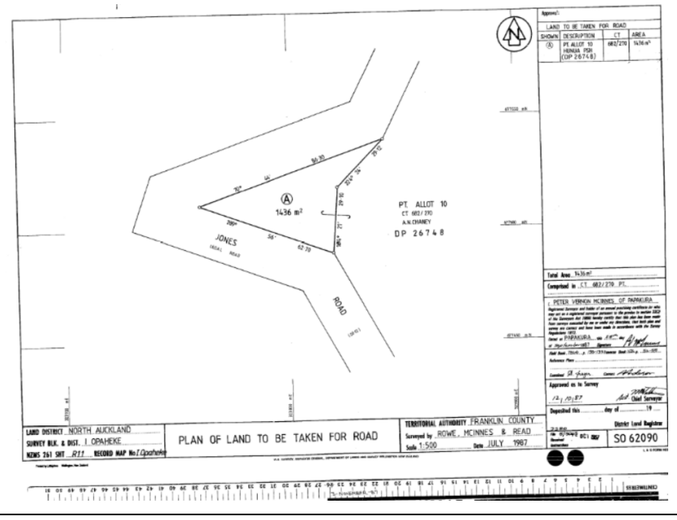
Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
1. Planning			
1(a)	The application details consultation undertaken with Ngāti Tamaoho. The following mana whenua groups are also listed as potentially having an interest in this area. - Ngāi Tai ki Tāmaki - Ngāti Maru - Ngāti Pāoa - Ngāti Tamaterā - Ngāti Te Ata - Ngāti Whanaunga - Te Ahiwaru - Waiohua - Te Ākitai Waiohua - Waikato - Tainui Please confirm if consultation has also been undertaken with these groups, and if so, provide evidence of consultation. Contact details can be found here: https://www.aucklandcouncil.govt.nz/building-and-consents/resource-consents/prepare-resource-consent-application/Pages/find-hapu-iwi-contacts-for-your-area.aspx	Consultation has not occurred with these mana whenua groups. As presented in the application, the consultation undertaken has been with Ngati Tamaoho with Statutory Acknowledgement over the whenua.	12-02-2025 KA – **Resolved** *KA Note: No interest received via weekly application register for any iwi group as of this date*
1(b)	The AEE details consultation undertaken with some neighbouring occupants. Please confirm if any of this consultation has been in writing and if so, can copies of this be provided for review?	Consultation was undertaken by the applicant in visits to the neighbours. This was verbal and no written communication occurred.	12-02-2025 KA – **Resolved** *KA Note: Nothing to review*
1(c)	Council's GIS indicates an unformed legal portion of Jones Road (at the existing site entrance) as potentially being subject to Road Closure/Severance. Please confirm if this is currently an ongoing process, and if this is likely to become part of the subject site in the near future.	The applicant's surveying team has been unable to find any future road closure/severance information on Geomaps. There was some road taking completed in 1987 on the opposite side of Jones Road (at the existing site entrance). Refer Attachment 1 to s92 Response and below SO_62090.  	12-02-2025 KA – **Resolved**

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
2. Managed Fill and Land Contamination			
2(a)	The managed fill site is proposing to import fill containing contaminant concentrations at levels that may have an effect on the environment (some proposed concentrations exceed the AUP(OP) permitted activity soil criteria). The AEE does not include an assessment on the potential effects to surface water and groundwater from the placement of managed fill on the site. Please provide an assessment on the potential effects to surface water and groundwater within the managed fill site.	**Fraser Thomas Ltd** As explained in the engineering report and FMP, the proposed WAC represent cleanfill (Class 5 landfill) WAC as defined in the WasteMINZ Technical Guidelines for Disposal to Land, version 3.1, which have been endorsed by the Ministry for the Environment and adopted for use in New Zealand. The main difference between these WAC and the AUP E30 permitted activity soil concentrations relates to the inclusion of some synthetic organic compounds in the WAC. The WasteMINZ guidelines state on pg 194 that the presence of synthetic organic compounds, which are not naturally occurring and result from anthropogenic sources, are common in natural soils. Their guidelines allow for a limited number of these compounds to be naturally present at detectable concentrations that do not represent a risk to the receiving environment or influence the potential future land use. For this reason, the low level contaminants present in the managed fill are considered unlikely to have any effects on surface water and groundwater from the placement of managed fill on the site. Furthermore, the only potential contaminant migration pathways are via the potential transport of silt/sediment in runoff to an aquatic environment and leaching of contaminants from contact of groundwater with the fill material. All runoff from active fill areas will be directed to sediment removal ponds, with floc dosing (if required based on bench testing) which will ensure effective removal of any silt/sediment in the fill runoff, resulting in the surface runoff transport pathway being incomplete. Groundwater was not encountered during the geotechnical investigation under the proposed northern fill area except at two locations (H3, 2.5m depth; H8 – 2.2-2.4m depth) and was not encountered at all under the southern fill area. The fill is to be placed on existing ground after stripping topsoil. Hence, there is considered no potential for direct contact of the fill material with the underlying groundwater. This further supports there being negligible effects to surface water and groundwater from the placement of managed fill on the site. Note: there was a typo for WAC for TPH C7-C9 in the FMP - this has been revised to 110mg/kg in the revised FMP.	18-02-2025 SP – **Resolved**
2(b)	Please provide an assessment of the potential human health effects from the managed fill material to site workers during filling on the site.	**Fraser Thomas Ltd** Potential human health effects from the placement of managed fill material on the site are considered negligible for similar reasons to item 2(a) – i.e. the WAC allow for some synthetic organic compounds to be present at sufficiently low levels that they do not represent a potential human health risk. Furthermore, all managed fill material will be placed by machinery and there will be little if any direct contact of workers with the managed fill material. The FMP provides for appropriate dust control measures from the fill area as well.	18-02-2025 SP – **Resolved**
2(c)	The AEE states that the stormwater ponds on site will be decommissioned at the completion of filling on the site. Please provide details on where underfill drains will discharge to following the completion of filling. Please discuss the potential for surface water and groundwater to contain elevated concentrations of contaminants after the completion of the managed	**Fraser Thomas Ltd** The underfill drain design has been revised so that all underdrains discharge directly to existing gullies, rather than to the dirty water drains and/or sediment removal ponds, as there is no need to treat the groundwater underdrainage. Refer to the attached updated FTL drawings 33250/350 and 33250/351.	18-02-2025 SP – **Resolved**

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
	fill, and the potential ongoing effects of contaminant discharges to the environment.	There is considered to be negligible potential for surface water and groundwater to contain elevated contaminants after completion of the managed fill for the reasons explained in item 2(a) for both groundwater and stormwater, plus stormwater will not come into direct contact with the managed fill material, due to the overlying 200mm minimum thickness of topsoil.	
2(d)	The Fill Management Plan (FMP) states cleanfill – please update the plan to state Managed Fill to match the application.	**Fraser Thomas Ltd** Completed.	18-02-2025 SP – **Resolved**
2(e)	It is understood that the applicant is now not proposing to import soil containing asbestos onto the site. Please remove from the FMP Waste Acceptance Criteria (WAC) - Asbestos No detect (P/A test) at source; <0.001 % AF/FA and <0.01 % ACM, please remove any reference within the AEE and FMP to "accidental" residual asbestos at low levels and/or asbestos.	**Fraser Thomas Ltd** The FMP has been updated to address these comments. The AEE does not refer to "accidental" residual asbestos at low levels and/or asbestos in this context, so has not been updated.	18-02-2025 ~~SP – **Unresolved**~~ ~~The response stated the FMP had been updated to remove all reference to asbestos, however, I note not all reference to asbestos has been removed from the FMP. I would like all references to be removed prior to granting the consent to ensure no asbestos is brought onto the site, as the applicant has confirmed they do not require a landfill consent which would be required to authorise soil containing asbestos onto the site.~~ ~~Please provide an updated FMP will all references to asbestos removed. I noted the below references to asbestos:~~ ~~i. Section 4 Fill Classification - Remove "and "accidental" residual asbestos at very low levels"~~ ~~ii. Section 4.3 Proposed Fill acceptance approach - Remove "If verification sampling at the Fill site itself does detect trace asbestos, this must be <0.001% w/w and/or <0.01 %ACM to be kept on-site or otherwise must be removed from site and disposed of to an appropriate landfill facility. It is anticipated this will be an occasional event (i.e. say 10% of verification samples) rather than routine". Note if the above limits are detected on site, then the applicant will have to apply for a landfill consent to authorise the asbestos to remain on site, therefore if the applicant believes occasionally asbestos may be imported onto the site, then a landfill consent to authorise asbestos should be applied for up front.~~ ~~iii. Fill Declaration Form 1EL - Remove the following: <0.001 % AF/FA and <0.01 % ACM (max 5% of verification testing).~~

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
		20-02-2025 **Refer separate attachment: 33250 362 Jones Road FMP_V6 250219** **Section 4 – deleted reference to asbestos.** **Section 4.3 -** **The remaining references to asbestos except where otherwise indicated above relate to accidental discovery protocols, where asbestos is accidentally discovered to have been brought to site. This is a standard FMP requirement (and in fact a requirement) of most accidental discovery protocols.**	05-03-2025 Appears resolved – call received from Council specialist on 03-03-2025 advising that Council's interpretation has recently changed to be more in line with WasteMINZ guidelines. Could mean that there is a change in activity status (in applicant's favour). KA to confirm next week.
2(f)	The provided FMP does not meet the requirements of Managed Fill FMP for the Auckland Region. Please update the FMP with the following: (i) The Council requires random soil samples to be collected at the entrance to the site/weigh bridge at a frequency of 1 sample per 500m3 of fill imported onto the site therefore a site personnel member needs to be on site daily to collect soil samples or a SQEP is employed to undertake random soil sampling. Please update the staff requirements within the FMP. (ii) All incoming loads are subject to random testing, which will occur at a rate of 1 sample per 500m3. Samples must be collected and logged by suitably trained personnel. Samples must be collected from at least three locations within each and placed in laboratory supplied appropriate containers. They are then sent under chain of custody documentation to an IANZ accredited laboratory and tested for the WAC parameters and asbestos presence/absence. (iii) A designated area for truck loads to be stockpiled while waiting for laboratory results. (iv) Procedures for the rejection of waste if contaminants exceed the acceptance criteria such as: o additional material associated from the source site may be temporarily or permanently suspended;	**Fraser Thomas Ltd** (i) Added – refer section 5.2.3 of FMP. (ii) (ii) forms part of (i). (iii) Added – refer section 5.2.3 of FMP. (iv) Relevant rejection procedures have been added to FMP, refer section 5.2.5. (v) Already in FMP – refer section 5.2.4. (vi) Updated – refer section 5.2.6 of FMP (vii) Added – refer section 3.8.9 of FMP.	18-02-2025 SP – **Resolved**

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
	○ review the exceedance in relation to any additional test results taken from fill previously or subsequently received from the source site; ○ review the exceedance in relation to total volume of material from the source site, and assessment in respect of total volume accepted at the Managed Fill site over the time period of disposal from the source site. ○ additional sampling of remaining fill material or stockpile material at the customer's site in the area and at the relative level where the material was removed from. ○ remedial actions appropriate to the level of contamination and extent of contaminated material as discussed and agreed in writing with Auckland Council. If necessary, these actions will be undertaken by a Suitably Qualified and Experienced Professional. Remedial Actions will be in accordance with MfE's Contaminated Land Management Guidelines No. 5 (Site Investigation and Analysis of Soils) which details the requirements for statistically representative investigation of contaminated soils. They may include one, intrusive investigation to determine extent and concentration of contaminants in the area where the load was placed at the fill, if practicable; (v) Verification sampling to be undertaken every six months within the managed fill site by an independent SQEP . The frequency and depth of soil sampling will be at an appropriate level that represents the volume of fill deposited over the previous six months. Verification samples must be analysed for the WAC and asbestos presence/absence. (vi) Six monthly pond sediment samples must be sampled for the WAC and asbestos presence/absence. (vii) Details on the proposed capping material/depth for the managed fill –		

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
	noting the cap must be verified cleanfill material.		
2(g)	***Non-s92 suggestion/comments:*** *(i) As per previous correspondence between Karl Anderson and Vance Hodgson, an additional landfill consent application could be made at this stage in order to fully consider the potential for accidental or residual asbestos contaminated materials to be imported to the site. If this additional consent is applied for, some of the queries here may change and/or there may be further queries.*	**Fraser Thomas Limited** Noted for future reference – no such consent is sought at this stage.	Noted
3. Noise			
3(a)	There is a likelihood of additional noise that will arise from the rear swinging flap of tipper trucks causing the banging of metal on metal, after the load has been tipped. Please confirm if this has been considered in the acoustic assessment, and if not, provide a further assessment to include this.	**Daniel Winter: Styles Group** The truck noise levels in the noise models are based on actual measurements of truck movements at other quarries and cleanfill sites. The level we have used in the noise model is 79 dB L_{AE} for a truck passing at 15 m at 30 km/hr. Our noise modelling for the trucks does not currently include the banging of metal on metal from the rear swing flap of tipper trucks. It is our understanding from discussions with the project team that the truck bins are metal but from their experience there is no slam noise from the metal hitting the truck body. The operation team have advised that there is occasionally a banging of the metal tail gate hitting the body of the truck when spreading the metal, but this will not apply for the operations at the Jones Road fill site. If there are banging noises (or any other unnecessary or unavoidable noises) from any of the vehicles or plant on site, these will be addressed and mitigated at the time. There are a number of potential mitigation options that can be implemented should this arise. If required, the applicant has agreed to a condition requiring a noise management plan and/or noise monitoring.	11-02-2025 DV - **Resolved**
3(b)	The activity involves trucks arriving on site and unloading fill. According to the acoustic report – *tonal reverse alarms must not be used on any plant or machinery on site. Broadband reverse alarms may be fitted if reverse alarms are required.* Will this apply to visiting trucks that may not be part of the operation of the site?	**Daniel Winter: Styles Group** In our report, we recommend that tonal reverse alarms should not be used on any plant or machinery on site. Broadband reverse alarms may be fitted if reverse alarms are required. The requirement is currently specific to "any plant and machinery on site". We understand that the question from council is in respect to trucks visiting the site. We have discussed this matter with the operational team and they have confirmed that all machinery and trucks on site will be fitted with Broadband reverse alarms. The same requirements will apply to all visiting trucks. The draft condition can be amended to: *Tonal reverse alarms must not be used on any plant or machinery on site or visiting the site. Broadband reverse alarms may be fitted if reverse alarms are required.*	11-02-2025 DV - **Resolved**
4. Auckland Transport			

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
4(a)	The Applicant's assessment focuses on daily averages derived from total operation. AT is of the view that this is not accurate way to assess the truck trip generation as the assessment focuses more so on daily averages and less on worst-case scenarios of truck trip generation. The Applicant provided a worst-case scenario for truck trip generation of 192 truck trips a day, stating this is related to 'seasonal fluctuations' and would not reflect the daily average truck trips. Please clarify: (i) What is the 'seasonal' period? (ii) Exactly how long will the period be? (iii) Is this an average number of truck trips per day during the seasonal period, or a worst-case scenario? (iv) What will the vehicle per hour (vph) be for a scenario where 192 trips are generated daily?	**Leo Hills: Commute** (i) Fill sites are busiest in summer when earthworks activity peaks on development sites. (ii) The seasonal peak is likely to be approximately 6-7 months between October – April/May. (iii) Fill site activity fluctuates a lot as it is dependent on construction activity. As such there is no set average trip generation during peak season. The worst case is what is described in the traffic report as the seasonal variation 96 trucks a day or 192 truck movements a day. (iv) As per the Transport Assessment, the sites peak hour (in the peak seasonal variation period) is anticipated to be 28 movements per hour (15%), however as per final paragraph of section 4.1 a more conservative value of 40 movements per hour has been used in the assessment.	20-02-2025 MF - **Resolved**
4(b)	The Applicant states that on average, 54 truck movements per day (in and out) will be generated outside the 'seasonal' period. Given this is an average, it is important to understand what the worst-case scenario would be for daily truck trips being generated outside the 'seasonal' period. It is noted that these types of activities, some days would generate more truck trips than others, and AT needs to understand this in more detail. Can the Applicant please provide what the worst-case scenario for daily truck trips and vph outside the regular period, noting that the numbers provided are only averages.	**Leo Hills: Commute** We note the 54 movements per day is an average over the entire year (not outside the seasonal period). In theory, the site could generate up to the sites maximum 192 truck movements a day during the peak seasonal period. The is likely to equate to 28 movements per hour (15%).	20-02-2025 MF - **Resolved**
4(c)	The shoulder widening should be sufficiently designed so that vehicles can pull over to make a safe right turn from the shoulder when vehicles are following behind them. By adopting Austroads Figure 7.1, it will accommodate situations of turning right from centre and still allowing following vehicles to use the shoulder. Please demonstrate the shoulder widening is sufficient by utilising Austroads Part 4A & section 7 (Figure 7.1 for taper calculations).	Fraser Thomas Ltd Austroads Figure 7.1 has been adopted, with this being added to FTL 20 series drawings. To accommodate this the road alignment has been shifted slightly north over approximately 50m length by up to 0.4m..	20-02-2025 MF – **Resolved** *Note: This can be checked at ENG stage as well. Will add a condition for this. Will apply the respective conditions for all works within the road reserve.*

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
4(d)	The application identified several bends along Hunua Road where truck tracking shows overlap for two-way truck movements. This presents a potential adverse safety effect as there will be a significant increase in trucks using this road. To mitigate these adverse safety effects, the applicant suggested improving the sightlines of oncoming trucks by trimming vegetation that currently blocks sight distance. Trimming these trees would enhance visibility for truck drivers, allowing them to slow down and wait for an oncoming truck to complete the turn around the bends. Given the increase in truck movements, this mitigation is relevant to address the potential adverse safety effects. As a result of this, the applicant will need to review this tree trimming periodically. Please confirm how often tree trimming would need to occur and also provide a further assessment on why periodic tree trimming would reduce potential adverse effects more than the option of complete vegetation removal.	Landscape advice has confirmed that vegetation monitoring and if required trimming, twice a year, would be more than sufficient in this circumstance. This frequency is understood to generally align with the roading authorities typical monitoring and roadside vegetation maintenance programme, particularly if there are complaints / known areas of issues. The applicant has signalled a willingness to contribution to this over the duration of the consent notwithstanding that this is an existing issue irrespective of any traffic associated with the proposal. Vegetation trimming or removal achieves the same outcome in terms of road safety, The point is the sightlines are maintained whether removed or trimmed and trimming is a more efficient and effective method in this circumstance than removal with potential impacts on the road formation. As above, the applicant has signalled a willingness to contribution to this over the duration of the consent notwithstanding that this is an existing issue irrespective of any traffic associated with the proposal. This outcome is a better (safer) state for the environment than the current.	~~20-02-2025~~ ~~MF – **Unresolved**~~ ~~Post meeting on the 17th Feb still in discussions about this. I will leave this item as unresolved until we can decide on next steps. removal with potential impacts on the road formation.~~ ~~KA checking with Council arborist team as of 20-02-2025.~~ ~~05-03-2025 update – arborist team unresponsive, responsibility for checking still with KA.~~ ~~13-03-2025 – discussion with Matt Ford. Team in AT who undertake trimming on rural roads do it on an emergency/reactive basis only. Very limited budget for reactive trimming, no regular maintenance schedule. Matt to discuss options with AT road corridor delivery team (staff: Scott Jones, AT)~~
		28/03/2025 Thank you for the advice that AT undertake reactive rather than proactive maintenance/trimming on rural roads. We reiterate Commutes findings previously submitted and repeated on the current environment, the anticipated effects of the activity proposed and a willingness to work together. We suggest a condition that provides the option for the consent holder to undertake the maintenance/trimming regime or approved AT contractor. We assume AT would have a list of approved contractors for various tasks who could do tree maintenance/trimming work and might have a generic CAR. Suggested condition: *Consent holder or approved AT contractor:* • *Conduct a survey on the trees, height, trimming at every 6 months.* • *Apply (if required) for a CAR to undertake the works.* • *Require any trimming to be supervised by a certified arborist* • *Provide a completion certificate back to AT/ AC.* Responding to the additional question on mitigations, we refer to the attached memo from Leo Hills: Commute, dated 28-03-2025 and previous submitted information.	04-04-2025 Meeting held with MF of AT, confirmed that condition approach is acceptable. Applicant to provide plan for new narrow road signage on Hunua Road 07-04-2025 MF- **Resolved**. Signage plan provided

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
4(e)	AT notes that when newly generated heavy vehicle volumes exceed more than 10% of the current level of traffic, a Pavement Impact Assessment (PIA) is required. The proposal states that the daily volumes on Hunua Road are 1921vpd. Therefore, 10% of this translates to 192 trips per day. The transport assessment states that the average truck trip generation is 54 truck movements per day; however, the application has also stated that on some days there will be a maximum of 192 truck movements per day thereby reaching the 10% threshold for a PIA to be provided. A PIA is required to understand the impacts on the pavement and if they will reduce the pavement life. The PIA must be submitted and reviewed by AT before the granting of consent. Please provide a PIA which includes (but is not limited to) details about the landfill routes, materials being transported to the site, what upgrades are needed to the existing pavement and design of the upgrades.	**Leo Hills: Commute** Over an average day there will be 54 truck movement per day. The 192 truck movements per day is only to accommodate seasonal fluctuations. As such in terms of pavement effects (which relate to wheel loading) the average per day is the critical figure and thus well below the 10% threshold.	~~20-02-2025~~ ~~MF – **Unresolved**~~ ~~The AT database is showing 1694 to 1829 AADT with 8% HCV volume (146 HCV per day). The proposal would then seem to exceed the 182 (10%) thresholds of the ADT on Hunua Road if they are proposing to generate during the seasonal period up to 192 trips per day. This would then mean the proposal will sit around 10.49% ADT for HCV, exceeding the 10% threshold. Therefore, the PIA is required to understand the effects HCV would have on the pavement condition.~~ ~~The scope of the PIA should be from the site access up to the access of Winston Quarry on Hanua Rd. Can be discussed.~~
	Leo Hills: Commute 03-03-2025 Refer memo attachment. Notwithstanding this opinion, if AT remain of the opinion that the threshold is 182vpd the applicant is agreeable to this limitation such that a PIA is not required.	~~13-03-2025 – brief update from Matt Ford, the specialist from AT has advised that some information provided is likely based on incorrect traffic numbers, so there is an issue with the modelling. Matt to discuss with specialist early next week and provide update for applicant.~~
	Leo Hills: Commute 28-03-2025 Refer memo attachment. We attach AT email advice dated Monday, 30 September 2024 that the PIA threshold was 10% of the TOTAL volume and not just HCV's. It is this advice that we have relied on in the previous responses.	04-04-2025 **Resolved** Meeting held with MF of AT, confirmed that this is correct, PIA threshold is not met.
5. Healthy Waters			
5(a)	Confirm whether the proposed recontouring of the land will result in changes in the natural catchment areas and clarify the scale of effects on: (v) Volume or frequency of flooding within the surrounding sites. (vi) Hydrology of the receiving watercourses/wetlands.	**Fraser Thomas Ltd** This is discussed in section 6.9 of our engineering report. The attached FTL drawing 305 also compares the pre and post cleanfill natural catchment areas (both on-site and upgradient off-site). For the two northern catchments, pre and post development areas are within 1-2% of each other, which is not expected to result in any increased volume or frequency of flooding within the surrounding sites and also unlikely to affect the watercourse/wetland hydrology. For the southern catchments, the pre and post areas are within 4-8% of each other. Runoff from these three areas combines just beyond the site boundary and there is no change in pre and post catchment areas and hence off-site effects at or below the combination point. Effects on the watercourse/wetland hydrology are considered likely to be negligible.	18-02-2025 DS - **Resolved**
5(b)	The proposal seeks to remove an average of approximately 0.2m-0.4m of topsoil and replace with average 0.15m. Given the likely low permeability of the underlying soils, expected to further decrease	**Fraser Thomas Ltd** Review of the geotech logs shows that the topsoil depth across the site varies from 0.1-0.35m with an average of 0.19m. Having discussed this with the	18-02-2025 DS - **Resolved**

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
	with the proposed earthworks, the soil water retention capacity is likely to decrease and the runoff from the site is likely to increase as a result. In this regard, clarify the scale of effects on: (i) Volume or frequency of flooding within the surrounding sites (ii) Hydrology of the receiving watercourses/wetlands.	applicant, it is proposed to respread a minimum of 200mm of topsoil on completed fill areas. We have adopted a lower compaction standard than for residential subdivision and techniques are available to retain and even improve the soil retention capacity (e.g. subsoil ripping). Hence, there are not expected to be any associated adverse effects on the volume/frequency of flooding with the surrounding sites and hydrology of receiving watercourses/wetlands. We have also commented on this in section 6.9 of our report in more general terms.	
5(c)	It appears that the proposed bridge abutments encroach into the existing floodplain extents. It is accepted that the removal of the existing culvert may result in a decrease in flood levels upstream, however the overall effects on flooding in the area following the installation of the proposed bridge structure is unclear. Provide a hydraulic assessment, including the comparison of the pre-development and post-development flooding extents, to demonstrate that the proposed bridge will not increase upstream or downstream flood levels (beyond the land owned or controlled by the Applicant).	**Fraser Thomas Ltd** The bridge is replacing an existing culvert. Section 6.8.3 of our report states that the bridge will be designed to take the 1% AEP storm event with allowance for climate change without heading up. Hence, upstream flood levels will be reduced, as the bridge replaces an existing 600dia culvert. The catchment at the existing culvert is approximately 13.2ha as shown in Figure 1 under this table. A flood prone area is present behind it with a storage volume of 409m^3 to the spill point (see Figure 4), which takes only an estimated 26mm of rain to fill (compared with 100yr rainfall of 285mm), meaning that there will be very little attenuation of rainfall behind the existing culvert in a 100yr event. Runoff continues down a gully on to the neighbouring site, combining with other overland flowpaths (OLFPs) from the subject site and surrounds to form a much larger OLFP (78.4ha) area within 290m of the existing culvert (see Figure 2) . Over this distance, there are no houses or any other buildings that could be affected. Further downstream, the OLFP catchment continues to increase and hence any increased flows associated with the culvert to bridge change, become negligible in comparison with flows from other sources. Hence, any increased flows down the gully from replacement of the existing culvert with a bridge are not expected to cause any adverse effects on neighbouring properties.	18-02-2025 DS - **Resolved**
5(d)	Section 6.4 of the Engineering Report states: '*The new impervious area is a very small proportion (0.3% of the total OLFP1 catchment area) and hence is not expected to cause any adverse flood effects for the 10% and 1% AEP storm events affecting other properties and/or buildings*.' Healthy Waters cannot rely on statements such as '*not expected to cause any adverse flood effects*', particularly given there is no specific hydraulic assessments provided to support this. Therefore, confirm that the stated in increase in impervious surfaces **will not** cause adverse downstream effects on flooding.	**Fraser Thomas Ltd** Given the new impervious area is such a small % of the total OLFP1 area, it is considered that this will not cause any adverse flood effects on other properties and/or buildings. Also see response to item 5(c), noting the lack of buildings along flowpaths downstream of the site.	18-02-2025 DS - **Resolved**
5(e)	Section 6.5.2 of the Engineering Report states: '*Overall, it is considered that the proposed Fill areas are likely to have less than minor effects on overland flows and flooding*.' Similar to the above, Healthy Waters cannot rely on statements such as '*likely to have less than minor effects*', particularly given there is no specific hydraulic assessments provided to support this. Therefore, confirm that the stated fill	**Fraser Thomas Ltd** The fill areas will not cause adverse effects on overland flows and flooding for the reasons set out above (items 5(a)-(d)) and in our report.	18-02-2025 DS - **Resolved**

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
	areas **will not** cause adverse effects on overland flows and flooding.		
6. Water Bore			
6(a)	Provide the coordinates of the proposed bore in NZTM format	**Fraser Thomas Ltd** The coordinates of the proposed water bore in NZTM format are: X = 1780472.611 Y = 5894243.583 Thes have been added to FTL drawings 33250/150 and 33250/190 showing the proposed water bore.	10-03-2025 Resolved
6(b)	Provide the following construction details: - Proposed depth - Proposed casing depth - Proposed casing type - Diameter of the proposed bore - Proposed grouting length - Aquifer to be drilled to	**Fraser Thomas Ltd** Bore construction details are not known at this stage, as will depend on what the driller encounters during drilling. However, expected details are given below, based on a comparative bore (ID 164 – refer engineering report, section 2.7.2) and discussions with drillers familiar with this area: - Estimated 60-150m depth - Estimated 50-70m depth - PVC - 100dia - Same as casing - Hunua greywacke	10-03-2025 Resolved
6(c)	Provide a map showing the location of any septic tanks/wastewater disposal fields within 100m of the proposed bore location	**Fraser Thomas Ltd** Refer attached FTL drawing 33250/190. This shows that there is one wastewater disposal field within 100m of the proposed bore location. This is the wastewater disposal field for the existing dwelling on-site. It is located approx. 70m to the north of the proposed bore and at approx. 3-4m lower elevation. Hence, there is no potential for surface migration of treated wastewater from the disposal field to the bore, while the bore is expected to extract water from a depth of over 60m and hence there is considered to be negligible potential for wastewater discharged to the disposal bore to contaminate the aquifer from which the bore water will be sourced.	10-03-2025 Resolved
6(d)	***Non-s92 suggestion/comment:*** *The application indicates that the water take will meet the Permitted Activity thresholds of 20m3/day and 5,000m3/year. A notice of the water take on the prescribed form will need to be provided prior to commencing of the water take. A copy of the form is provided separately.*	**Fraser Thomas Ltd** This form will be completed at the appropriate time, well in advance of the commencement of any water take.	10-03-2025 Resolved
7. Regional Earthworks			

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
7(a)	The proposed Erosion and Sediment Control Plans are not currently designed in accordance with GD05. Please update the plans to demonstrate how the fill areas will be controlled and managed during the earthworks phase. Please provide the following information: - SRP locations, design, contributing catchment, dimensions, inlet/oulet, emergency spillway and set back from stream and wetland environments. - Super silt fencing location (silt fencing should be upgraded to super silt fencing given proximity to fresh water environments and slope). - Clean and dirty water diversions - Contour drains/drop out pits - Any other impoundment devices for smaller catchment areas (i.e. DEBs) - Stabilised entranceways and haul roads - Wheel wash information (if proposed, a management plan required to ensure any additional sediment-laden water from the wheel wash is appropriately managed and captured). - Location of any temporary stockpile(s) and controls.	**Fraser Thomas Ltd** Most of this information has already been provided to Council. The Engineering report includes an erosion and sediment control plan in section 5. Refer s5.2.1 and 5.2.2 for drain details; s5.2.3 for drop out pit usage; s5.2.4 for SRP details of the engineering report. Refer Appendix A of engineering report for drain and SRP design calculations. Refer FTL drawings 121-122, 140, 161-162, 170-173, 180-181 and 251 for ESCP device location and design details. Stream and wetland setbacks are shown on FTL drawings 1221 and 161. All silt fences have been replaced with super silt fences where needed for haul road earthworks. Silt fence has been removed on the northern clean fill as DWDD2 will capture surface runoff in this area. The haul road through the site will be gravelled and hence stabilised. Temporary stabilised access roading, tip heads and vehicle turning circle areas (i.e. hardfill) will be constructed for each stage of filling and shown on fill sub-staging plans (to be prepared post-consent approval), along with any proposed drop out pits and contour drains. Wheel washing will be undertaken using a water blaster near the site office on a gravel pad, as vehicles exit the site. Washwater will be allowed to soak into the ground. Any temporary stockpiles will either be located within the 2ha open fill area (treated by SRPs) or on adjacent areas with separate silt or super silt fencing provided around them.	~~SB 17-02-2025~~ ~~Unresolved~~ ~~There are issues with the ESCP which require further revisions beyond conditioning finalised plans. Please address the following and update the plan(s) as required:~~ ~~- Construction of the SRPs will require additional earthworks closer to the stream/wetland environments which is not shown/accounted for in the set-back information. Please update the set-back environments for the SRP locations.~~ ~~- Although the silt fencing has been upgraded to super silt fencing for the haul road, this has not been updated for the Northern & Southern ESCP filling areas. Please update.~~ ~~- Information from the engineering report for SRP and drain design (including dimensions, storage, contributing catchments etc) should be added to the overarching plan set.~~ ~~Concern is raised around wheel washing in proximity to stream and wetland environments. Exact location of the wheel wash should be included on the ESCP and information relating to controls or achieving a closed system added. Simply "allowing to soak into the ground" is likely not sufficient when in proximity to freshwater environments and can lead to uncontrolled sediment discharge.~~
		Fraser Thomas Ltd 03-03-2025 Refer attached: **33250 revised dwgs S92 combined 250228** - The additional earthworks required for SRP formation have been added to the relevant drawings, 120 for the northern fill area and 160 for the southern fill area. These earthworks lie outside the required set-backs and hence the setbacks are still complied with. - It is not proposed to install silt fencing alongside the dirty water drains, as this is not necessary under GD05. SSFs have however been added around the earthworks extent for the SRPs for use during their construction and operation (refer dwgs 121 and 161 for northern and southern areas respectively). If additional silt/super silt fencing is required for each stage of fill development, these will be shown on staging plans prepared for that stage prior to implementation. It is not entirely clear if this is what the reviewer's query is referring to. Hence, if this does not fully answer their question, can Council provide the reviewer's contact details so this issue can be discussed with them.	05-03-2025 **Resolved**

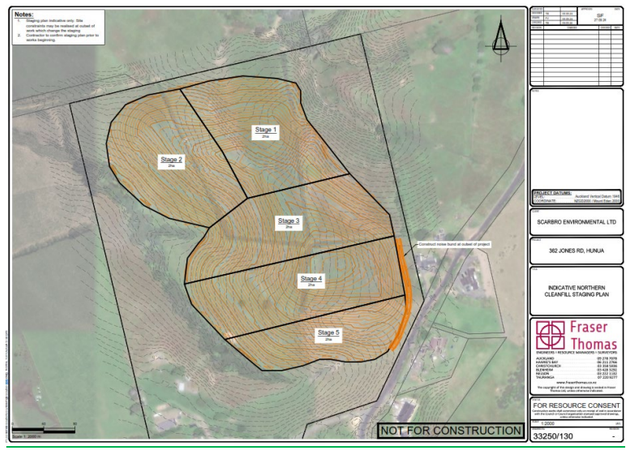
Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
		- The northern SRPs are all 2ha ponds and the southern SRP a 1.2ha pond. Design information is included on dwg 170 with decant details on dwg 171 for the 2ha ponds already. Design information is included on dwg 172 for the 1.2ha pond with decant details on dwg 173 already. The tables from the engineering report have been added to both dwg 170 and 172 for completeness. Drain design details are already included on dwg 181, with the dirty water drains labelled Type 1 and 2, with different drains referenced to these types in dwgs 121 and 161. The wheel wash facility is to be located just off the internal access road in close proximity to the proposed bore – this information has been added to FTL dwg 190. This location is on top of the ridge and approximately 100m from the watercourse to the north, 125m away from the wetland to the SW and 100m away from the wetland to the SE. Wheel washing will be undertaken using a water blaster on a bunded gravel pad (25m long to fully accommodate a truck and trailer), as vehicles exit the site. Estimated water usage based on 20L/min x 5 min per vehicle x maximum 100 vehicles per day is maximum 10m^3/day. Subsoil drains under the gravel pad will collect any ponded water within the gravel pad (estimated 100L per wash) and convey it to a 1.2m dia MH wet sump with 0.6m permanent water depth. Either Bidim A14 will be placed on the base of the gravel pad above the subsoil drains or the subsoil drains will have filter socks around them to protect the subsoil drains from blockage. Any excess runoff from the gravel pad will be collected by a catchpit on the wet sump. Excess water from the silt trap will flow into either: • a soak pit of nominal 10m3 capacity (1 day max flow capacity) or • dispersal trench for inground soakage or minimum length 10m, with excess water being dispersed as overland flow; or • spreader bar of minimum length 10m for discharge as overland flow. Silt/sediment will be removed both within the gravel pad and within the silt trap. Details of this system would be provided as part of a building consent application for private drainage.	
7(b)	Section 5.2 of the Engineering states that *"open channel drain/bunds located around the fill perimeter will collect all runoff (i.e. both clean and dirty runoff) from the fill area and convey it into the three sediment ponds.."*. Per best practice GD05, clean water **should not** be diverted to a SRP. Please update the report and provide clear plans clearly distinguishing any clean water diversions separate to dirty water diversions to ensure clean water is diverted around the fill site.	**Fraser Thomas Ltd** Clean water will be diverted from SRPs as much as possible (other than small, isolated areas where gravity diversion is not possible). The ESC plans for the northern and southern cleanfill area (FTL drawings 121 and 161) show the overall dirty water drain arrangement to demonstrate that gravity conveyance of dirty water to the SRPs is viable. It was agreed at the pre-app meeting that further plans relating to sub-staging of the fill areas would be provided post-consent. FTL drawing 121 (Attachment 4 to s92 Response) has been annotated to provide two examples of how the sub-staging might be done, with associated clean and dirty water drains shown. Final plans will be prepared at the appropriate time, in advance of filling commencing in those areas.	SB 17-02-2025 Resolved. Clean water diversions should be included in the final plans, however, this can be included in the finalised ESCP.
7(c)	Please confirm the anticipated timing and duration for each of the fill areas and 2-hectare open sections.	**Fraser Thomas Ltd** The anticipated duration of filling depends on the type and no of incoming truckloads and is estimated to range from 4.1 to 10.9 years. Based on the northern fill area being 720,000m^3 and the southern fill area 70,000m^3, this means it would take around 3.7-9.9yrs to fill the northern area (9.5ha area)	SB 17-02-2025 Resolved

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
		and 0.4-1.0 years to fill the southern fill area (2.0ha). Filling times for 2ha sub-stages of the northern area are estimated to range from 0.8-2.1 years but would be confirmed once sub-staging plans have been prepared in the future.	
7(d)	Section 6.8.2 of the Engineering Report states the removal of the existing culvert will take place by way of installing a silt fence across the stream downgradient of the culvert. Per best practice working within watercourses, silt fencing is not recommended within streams. Please provide an alternative methodology i.e. dam and divert with sandbags and appropriate design drawings.	**Fraser Thomas Ltd** S6.8.2 and FTL drawing 33250/140 both refer to the use of sand bags and pumps as well. The downstream super silt fence has been changed to sand bags and this text and drawing revised accordingly, including the detailed methodology in the text and on the drawing.	SB 17-02-2025 Resolved
8. Streams & Wetlands			
8(a)	Please provide long and cross section of the bridge design to demonstrate compliance with AUP(OP) standards E3.6.1.16.	**Fraser Thomas Ltd** The proposed bridge will be a proprietary product. Stresscrete has provided typical details, showing the bridge will be single lane, approximately 12m long and 3.6-4.2m wide, spanning the watercourse, with abutments at each end. A typical long-section and cross-section are shown on the attached Stresscrete "rural bridge" drawing (Attachment 2 to s92 Response) and these have been added to the FTL dwg set. This complies with the E3.6.1.16 requirements: i. No piles will be located in, on or under the bed of the stream. ii. The total structure length parallel to the water flow direction will be much less than 30m. iii. No erosion or scour management works will be required. iv. The proposed bridge will not prevent fish passage. v. The structure will not contribute to any minor bed erosion, scouring or undercutting. vi. Bridge installation should not involve any works within the stream bed. Any construction materials or other items that may fall into the stream bed will be removed from the bed on completion of the works. vii. The bridge will be sized to allow for the 1% AEP flood event to pass under it and will not increased flood levels upstream or downstream of the structure, as explained further under our item 5(a) and 5(c) responses.	18-02-2025 AB – **Resolved** *I note that bridge sections are shown on drawing 33250/221 and others. No works will be undertaken in the stream bed or banks.*
8(b)	Please provide long and cross section of the reinstated stream and wetland, with plans of planting and instream habitat enhancement that are in line with the Guidance for Large Wood Installations in New Zealand Rivers, dated 2024	**Fraser Thomas Ltd** The existing culvert is approx. 4.8m long and hence the reinstated stream length will be 4.8m. A photo of the culvert crossing is included below this table in Figure 5. Adding a large wood installation to the stream is not favoured from an engineering perspective, due to the very small length of channel that would benefit, while the channel cross-section itself is relatively small. Adding large wood into this cross-section may cause water to back up the channel, creating a tailwater effect that will reduce the channel conveyance capacity under the bridge, while it could also result in potential localised scour/erosion. Refer to FTL drawings 33250/141 for a long section and cross section at the culvert location. **Boffa Miskell Ltd: Eddie Sides** We have used wood before, usually together with boulders in completely new stream diversions, with varying success. I don't think it would have much benefit here because of the low flows, so its won't really affect the hydrology	18-02-2025 AB – **Resolved** *I note motivation for <u>not</u> using large wood installations is provided. Drawings 33250/140-B and 33250/141 show cross and long sections with methodology that confirms how stream reinstatement will be undertaken. <u>I defer to SB's assessment of erosion and sediment controls during removal of the culvert .</u>*

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
		and morphology and improve habitat such as creating pools and bars. It would probably have a negligible impact on ecological values. Installing a structure would also involve disruption the natural stream channel, probably have disproportionate design and installation costs, and have some risk to the downstream infrastructure (i.e. getting jammed in the culvert). I also think it is part of a stream restoration toolkit but choosing a specific solution at the start is not a good restoration process. Plan of planting and habitat enhancement – provided in Attachment 3 to s92 Response.	
8(c)	Please confirm if temporary diversion, or a temporary culvert will be required to facilitate removal of the existing culvert? I note that during our site visit in December 2024, the stream was very wet and that this stream may not completely dry up.	**Fraser Thomas Ltd** Refer response to item 7(d) above. A temporary diversion is required involving sandbags and a pump over system. A temporary culvert is not required.	18-02-2025 AB – **Resolved** *I note the methodology shows on drawing 33250/140-B.*
8(d)	Please provide catchment plans to show how flow to wetlands and streams will be maintained.	**Fraser Thomas Ltd** Refer engineering report, s6.8 which discusses the maintenance of flows to wetlands and streams, catchment plan FTL drawing 33250/305 and our response to item 5(a), which explains that flows to wetlands and streams will be maintained.	18-02-2025 AB – **Resolved** *I note that catchments are shown on drawing 33250/305*
9. Ecology (Significant Ecological Area)			
9(a)	***Non-s92 suggestion/comments:*** *Please provide a planting plan for the proposed planting areas*	Plan of planting and habitat enhancement – provided in Attachment 3 to s92 Response..	
	Non-s92 suggestion/comments:		Recommendation for a bat survey condition, which was agreed to by the applicant. Example condition was sent to applicant on 13-02-2025. Unclear if there is any acceptance of the exact condition. Confirm this prior to getting ecologist to close off their step.
10. Traffic Engineering			
10(a)	19-02-2025 Please provide cross sections of the internal Haul Road (every 20m) to ensure that two-way movement of the largest design vehicle (i.e. truck and trailer) can be accommodated.	**03-03-2025** It is not clear how this request assists with an understanding of the effects on the environment from this activity. RFI matters 10(a)(b)(c)(d) all relate to internal traffic matters for what is a private internal road that will adjust to the staging and does not need a fixed engineering design at this time. Hence, it is unclear why this detail is being requested as part of the resource consent application. These matters can be checked as part of further design work on the access road for each stage of fill and there is sufficient space available within the site to widen or modify the internal haul road accordingly.	~~06-03-2025~~ ~~- RS - The purpose of 10a was to assess if there will be enough width available for two-way movement of largest design vehicle. If Karl is happy with the consent condition, please request applicant to provide wording of the consent condition.~~ ~~Note: applicant coming up with draft condition~~

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
		A similar approach was discussed at the pre-application meeting in relation to fill staging plans, where it was agreed that rather than providing detailed fill staging plans as part of the RC application, these would be provided as part of each stage of fill development (or potentially for each year of operation. A safe, efficient and operationally workable haul road will be established that adjusts to the staged filling of the site.	
		28-03-2025 Applicant agrees with proposed strikeouts and additions to condition. ***Haul Road, Internal Roads and Turning Areas Condition*** *Prior to the commencement of the filling operation, and as necessary to respond to staged filling, the haul road with a minimum 6m width ~~and passing bays are~~* ***formed and*** *installed ~~where necessary~~, along with internal access roads and turning areas created for each stage of filling, to ensure safe and efficient* ***2-way truck and trailer*** *vehicle movements within the site.* *Associated stormwater controls to be in general accordance with GD05 and the engineering and erosion and sediment control plans prepared for each stage.* *Haul road, internal access road and turning area design detail to be included with the Stage Erosion and Sediment Control Plan.*	07-05-2025 **Resolved** ZL – confirmed that this item can be closed off, exact condition wording to be discussed at later stage
10(b)	19-02-2025 Please provide tracking of the largest design vehicle (i.e. truck and trailer) around the bends of the Haul Road to ensure the truck stays within the Haul Road.	**03-03-2025** Refer 10(a) above.	~~06-03-2025~~ ~~▪ The purpose of 10b and 10c was to assess if there will be enough width available for two-way movement of largest design vehicle around the bends and enough inter-visibility between incoming and outgoing vehicles. If Karl is happy with the consent condition, please request applicant to provide wording of the consent condition.~~ ~~Note: applicant coming up with draft condition~~
		28-03-2025 Refer 10(a) above.	07-05-2025 **Resolved** ZL – confirmed that this item can be closed off, exact condition wording to be discussed at later stage
10(c)	19-02-2025 Please provide a visibility assessment of the largest design vehicle (i.e. truck and trailer) around the bends of the internal Haul Road to ensure inter-visibility of trucks entering/exiting is achieved.	**03-03-2025** Refer 10(a) above.	~~As above~~
		28-03-2025 Refer 10(a) above.	07-05-2025 **Resolved** ZL – confirmed that this item can be closed off, exact condition wording to be discussed at later stage
10(d)	19-02-2025 Please confirm the priority control around the proposed bridge @chainage 50 and accordingly provide a signage and markings plan annotating all traffic engineering infrastructure proposed.	**03-03-2025** Refer 10(a) above.	~~06-03-2025~~ ~~▪ The purpose of 10d was to assess the intersection controls around the proposed bridge to determine who gets priority and there are signs and markings marked to efficiently communicate the message to drivers. If Karl is happy with the consent condition, please request applicant to provide wording of the consent condition.~~

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
			~~Note: applicant coming up with draft condition~~
		28-03-2025 Refer 10(a) above.	07-05-2025 **Resolved** ZL – confirmed that this item can be closed off, exact condition wording to be discussed at later stage
10(e)	19-02-2025 AEE states the following: *"The local power supply reticulation to the site is off Jones Road and extends to the site office and wheel washing area."* The provision of wheel wash procedures are supported from a Traffic Engineering perspective to avoid any sediments being tracked onto the road reserve. Please confirm and provide the potential wording of a consent condition if this forms part of the proposal.	**03-03-2025** Condition to reflect the below or similar. The wheel wash facility is to be located just off the internal access road in close proximity to the proposed bore – this information has been added to FTL dwg 190. This location is on top of the ridge and approximately 100m from the watercourse to the north, 125m away from the wetland to the SW and 100m away from the wetland to the SE. Wheel washing will be undertaken using a water blaster on a bunded gravel pad (25m long to fully accommodate a truck and trailer), as vehicles exit the site. Estimated water usage based on 20L/min x 5 min per vehicle x maximum 100 vehicles per day is maximum 10m^3/day. Subsoil drains under the gravel pad will collect any ponded water within the gravel pad (estimated 100L per wash) and convey it to a 1.2m dia MH wet sump with 0.6m permanent water depth. Either Bidim A14 will be placed on the base of the gravel pad above the subsoil drains or the subsoil drains will have filter socks around them to protect the subsoil drains from blockage. Any excess runoff from the gravel pad will be collected by a catchpit on the wet sump. Excess water from the silt trap will flow into either: • a soak pit of nominal 10m3 capacity (1 day max flow capacity) or • dispersal trench for inground soakage or minimum length 10m, with excess water being dispersed as overland flow; or • spreader bar of minimum length 10m for discharge as overland flow. Silt/sediment will be removed both within the gravel pad and within the silt trap. Details of this system would be provided as part of a building consent application for private drainage.	06-03-2025 RS - Resolved
10(f)	19-02-2025 Please provide further assessment and annotations on the plans of the temporary stabilised access roading, tip heads and vehicle turning circle areas for each stage of filling.	**03-03-2025** Refer 10(a) above.	~~06-03-2025~~ ~~• The purpose of 10f was to assess if there will be enough turning circle area provided for truck to manoeuvre around at the end of each filling stages. If Karl is happy with the consent condition, please request applicant to provide wording of the consent condition.~~ ~~Note: applicant coming up with draft condition~~
		28-03-2025 Refer 10(a) above.	07-05-2025 **Resolved** ZL – confirmed that this item can be closed off, exact condition wording to be discussed at later stage
11. Landscape			

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
11(a)	The proposal is described in section 2 of the Assessment of Landscape and Visual Effects (ALVE) as a series of 'bullet points'. With the exception of the visual simulations, no figures have been included in the assessment to illustrate the detail of the proposal. To fully understand the proposal it is recommended that figures illustrating: 1. the staging of the proposal in relation to the contextual landscape and potentially affected individuals; 2. how the proposed fill areas relate to the contextual landform (in addition to a plan, this should also include extended cross sections based on those contained in the lodged engineering plans to determine whether the slopes of the proposed landform are sympathetic to / are consistent with the existing topography); The description of the proposal should also be expanded to include discussion of the proposed staging and activity within the site (including vehicle activity).	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** Paragraphs 104-130 of the AEE outline the proposed staging. The managed fill deposition will be staged so that a maximum area of 2ha is being filled at any one time. Preliminary staging plans are shown on drawing 33250/130. The staging is indicative only, as the filling will be an iterative process, with filling areas changing as required to build the final platforms. The staging plan may also need to be changed as site constraints and operational constraints are realised during either detailed design or once SEL has established on site. At the pre-application meeting Auckland Council agreed that staging could be responsive rather than prescribed particularly for Erosion and Sediment controls, but a plan has been included in the application. Staging is also controlled by the maximum 2ha area of exposure at any time. Refer to Figure 1 overleaf. It is not considered necessary to prepare cross sections. The proposed contour plans clearly illustrate the final form of the managed fill. 	~~13-02-2025~~ ~~SCLA - **Unresolved**~~ ~~Resolved in part. The proposed contour plans and cross sections (notably XS-F and XS-G contained in the Fraser Thomas plan set suggest that the proposed final shape of the fill landform is engineered in its form and grades (e.g. 1:3).~~ ~~Please provide a rationale for the final shape / form / grade of the fill site including comment on the following:~~ ~~i. whether the abrupt changes in grade /slope between the fill site and existing site will merge effectively to reflect the characteristics of the hill and valley topography,~~ ~~ii. how these abrupt changes and will be perceived from neighbouring properties.~~

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
		Further Response 27-02-2025 **See Jones Road Managed Fill_s92 request_Landscape Response_27.02.2025.doc**	18-03-2025 SCLA - **Resolved**
11(b)	The inclusion of additional figures would be helpful to understand the themes and issues described in section 4 (the site and surrounding landscape). Such figures should illustrate the key topographical features both of the site and contextual landscape. This will assist with the understanding of the terrain and visual catchment.	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** Photographs of the site and surrounding area are included in the LVA and in the visual impact photosimulations. It is presumed that the reviewer has undertaken site investigations and would be familiar with the existing environment. Photographs are included in Annexure 1 illustrating the outlook to the surrounding area from both the northern and southern fill areas.	13-02-2025 SCLA - **Resolved**
11(c)	It is recommended that a plan be included that illustrates the location of potentially affected individuals / viewer groups identified in section 6. The assessment comments on the relatively small scale and complexity of the landscape / topography and opies that this is helpful in enabling the integration of new landform of a similar scale, but at the same time, a small scale landscape with intimate views is also more sensitive to change. The suggested illustrative figures should seek to demonstrate how the potentially affected individuals are situated within their respective visual catchments and how they are situated in relation to the proposed fill areas. *The policy directives under the AUP(OP), as I read them, point towards the consideration of potential adverse effects on the amenity values of people within rural-residential lifestyle properties. I also note that Policy H19.2.6.(4)(b), suggests that completed landforms (following the completion of cleanfill activity in the rural landscape) should be designed and implemented to be "...in keeping with the appearance, form and location of existing rural character and amenity values"*	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** The reviewer has usefully provided a marked up aerial of potentially affected parties (attached as Annexure 2). In terms of the potential effects of additional properties identified I would make the following comments: 332 Jones Road – addressed in the LVA (paras 6.38-6.42). 345 Jones Road – views will be partially screened by the hedge along the road boundary. Views largely oriented to the north away from the site. 353 Jones Road – addressed in the LVA (paras 6.43-6.47). 363 Jones Road – the outlook from the new dwelling at 363 Jones Road is generally away from the site towards the eastern views with an earth bund/cutting on the Jones Road frontage. Jones Road providing additional physical separation from the site. 380 Jones Road – this property has recently constructed two relocatable tiny homes on the site. These are oriented away from the southern fill site and are screened by the pine shelterbelt within the property. 1870 Hunua Road – views towards the southern fill are screened by trees within this property and off site shelterbelts. 2189 Ponga Road – views are largely screened by vegetation. 2169 Ponga Road – views are largely screened by vegetation.	~~13-02-2025~~ ~~SCLA - **Unresolved**~~ ~~Generally – All individuals assessed (both in the LVA and s92 response) must include a determination of the construction, short term and longer term potential adverse effects.~~ ~~#332 – The photo panorama Viewpoint 1 (in the LVA) was taken from further north than the northern dwelling within this property, and at a lower elevation, thereby reducing the apparent potential dominance of the proposed landform compared to that which would be experienced from the dwelling. Even from this location though, the proposed landform blocks some views to the south west and west. Bearing this in mind, more discussion of the potential adverse effect that will be experienced by occupants of this dwelling.~~ ~~Views from the southern dwelling will be blocked / lost as a result of the proposal. To understand the extent of view loss / change from the current situation, it is recommended that visual simulations from both of the dwellings be provided.~~ ~~#345 – The assessment in the LVA does not comment on views from the upper storey of this dwelling.~~ ~~#353 – The LVA states that the adverse effect experienced by occupants will be 'moderate to high initially'. Can the timeframe associated with this assessment be defined, and can the longer term level of adverse effect be provided? It appears that views to the west from this property will be blocked by the proposed landform and this may influence the longer term adverse effect.~~

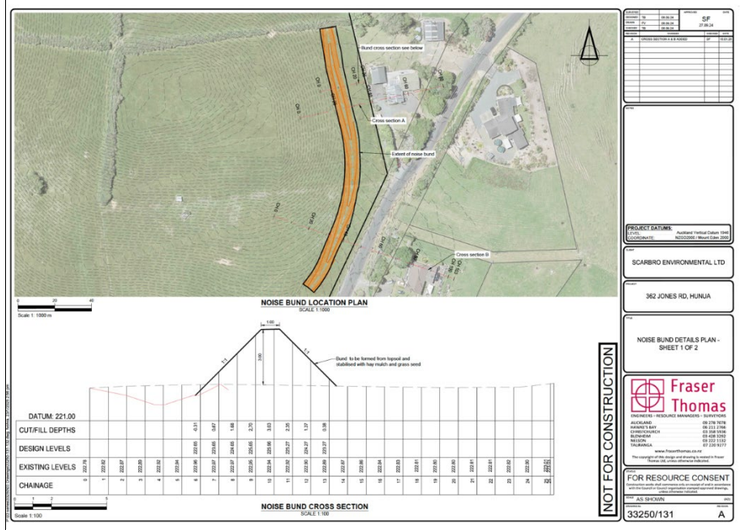
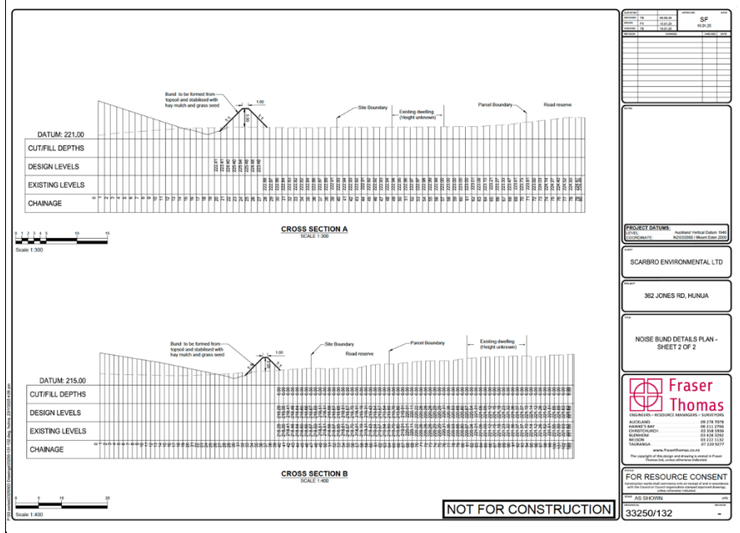
Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
		63 Gillespie Road – views towards the southern fill site are largely screened by vegetation within this property (refer to Figure 1). 5 Middleton Road – views partially screened by vegetation (refer to Figure 3) 8 Middleton Road – views entirely screened by vegetation (refer to Figure 3) 27 Middleton Road – views entirely screened by vegetation (refer to Figure 3) 51 Middleton Road – dwelling elevated at RL 260m with extensive views. Northern fill site is in excess of 1.2km away and southern fill site will be viewed sitting low in the landscape at RL 205m (refer to Figure 2).	~~With reference to 380 Jones, 1870 Hunua, 2169, 2189 Gillespie, 5, 8, 27 and 51 Middleton Road, to understand the level of effect, a more detailed analysis of these properties / dwellings, description of their existing views and the anticipated future view would be helpful. In addition, this assessment must include a determination of the level of temporary and longer term adverse effect.~~
		Further Response 27-02-2025 **See Jones Road Managed Fill_s92 request_Landscape Response_27.02.2025.doc**	18-03-2025 SCLA - **Resolved**
11(d)	Landscape effects are discussed in paragraph 3.16 onwards. The analysis is lacking comment on cultural values and it is recommended that the landscape assessment commentary highlight any relevant Māori cultural landscape values and address any potential impacts on these values.	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** Auckland Council's Cultural Heritage Inventory does not identify any cultural heritage features located within the site and there are also no historic heritage features shown for the site on the Auckland Unitary Planning Maps The Auckland Council's GIS identifies that the site is within the Statutory Acknowledgement Area of Ngati Tamaoho. Respecting the Statutory Acknowledgement, the applicant has engaged with Ngati Tamaoho which included an onsite hui to understand areas of significance, values and interests. The advice from Ngati Tamaoho provided to the applicant (and appended to the application). is as follows: *The Hunua Awa runs south from the Hunua Ranges Kohukohunui, within an area containing a wide range of sites from defensive pā to mahinga kai, urupa to marae, and awa to tuahu. The variety of the uses of the places in Te Hunua/Kohukohunui indicate the importance of the entire area as an interconnected whole to Ngāti Tamaoho.* *Each of the individual places are important in their own right but their real significance can only be understood when considering the area as a whole. This is an area that has provided Ngāti Tamaoho with so much more than can be described in any historical narrative. It is part of the mauri of this people and is an absolutely fundamental part of their cultural identity.* *As a place of food gathering the Hunua Awa was of almost unparalleled importance, with abundant eels and inanga.* *Though Ngāti Tamaoho were an iwi who travelled greatly, the Hunua Ranges were an ancient defensive stockade which had protected our tūpuna for centuries. There were many defensive pā in the surrounding foothills including, Paparata, Te Maketu, Pihanga and Ngā Urukehu. The interior was a place of great tapu, although there were several sites of refuge that were only known to Ngāti Tamaoho and the other hapū of the area.* *Te Hunua/Kohukohunui was also a place of immense spiritual importance for Ngāti Tamaoho.*	13-02-2025 SCLA - **Resolved**

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
		Ngati Tamaoho have advised they are not opposed to this application for managed fill provided the following are provided for. *(i) That all waterways and wetland areas on both sided of the existing access are fenced for stock exclusion [this can be a 3 wire hotwire if cattle are to be grazed] and riparian planted with appropriate native plants.* *(ii) That rock riprap is placed down the paddock for the road runoff to pass over prior to entering the waterway/wetland.* *(iii) That super silt fencing is provided to prevent any silt from entering any of the waterways onsite.* *(iv) If any flocculation is to be used that is to be organic.* It is not our place to express or interpret Māori cultural landscape values but in this case it is clear that Ngati Tamaoho have a particular interest in the protection and restoration of waterways and wetland areas. This will have positive landscape outcomes.	
11(e)	The assessment of landscape effects only considers the longer term level of effect - the landscape effect following completion of the fill activity. It is likely that temporary landscape effects will occur during the life of the consent and it is recommended that these be considered and discussed.	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** While there will be short-term visual effects these would be entirely acceptable in the context of the site and surrounding working rural environment. The visual contrast between the exposed fill and surrounding pastoral and vegetated landscape will visually highlight the presence of the managed fill. Exposed areas of the fill are restricted to 2ha which will reduce potential adverse effects. These will reduce once grass is reinstated over the exposed areas.	13-02-2025 SCLA - **Resolved**
11(f)	It is recommended - when discussing temporary landscape effects - that comment be included regarding the effect that will be generated by vehicle activity within the site	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** Truck movements will be visible, however within the context of the rural environment and proximity to the Hunua Quarry, these will not be incongruous. In the long-term, once filling is completed, the potential adverse visual and landscape effects of the changed landscape would be entirely acceptable as the modified landform is reinstated in pasture and becomes integrated into the surrounding rural landscape.	~~13-02-2025~~ ~~SCLA - **Unresolved**~~ ~~Insufficient detail has been provided with respect to proximate viewers and the adverse effects experienced by these individuals. These should be discussed, including a quantification of the duration of adverse effect generated by vehicle movements.~~
		Further Response 27-02-2025 **See Jones Road Managed Fill_s92 request_Landscape Response_27.02.2025.doc**	~~18-03-2025~~ ~~SCLA – **Unresolved (resolved in part)**~~ ~~It is recommended that the adverse effect of traffic movement be also assessed in relation to the dwelling within 1852 Hunua Road, which offers direct views to the entrance of the Site from across the road.~~
		Rob Pryor, LA4 28-03-2025 Refer attached Technical Memo 25/03/2025	04-04-2025 SCLA - **Resolved**
11(g)	From 6.26 onwards, the ALVE discusses visual effects. Potentially affected individuals are identified in paragraph 6.29. My preliminary assessment suggests that the lists of potentially affected individuals is deficient and I have attached a rough	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** The reviewer has usefully provided a marked up aerial of potentially affected parties (attached as Annexure 2). In terms of the potential effects of additional properties identified I would make the following comments:	~~13-02-2025~~ ~~SCLA - **Unresolved**~~ ~~As per 11(c) above~~

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
	figure showing additionally potentially affected residential individuals (noting that, in section 6.58, Distant residents within some of the elevated landholdings in the surrounding area appear to be classified as individuals in excess of 500m from the Site). It is recommended that further consideration be given to the identified affected individuals, and additional assessment be undertaken to capture any individuals previously omitted. A copy of this figure is provided separately.	332 Jones Road – addressed in the LVA (paras 6.38-6.42). 345 Jones Road – views will be partially screened by the hedge along the road boundary. Views largely oriented to the north away from the site. 353 Jones Road – addressed in the LVA (paras 6.43-6.47). 363 Jones Road – the outlook from the new dwelling at 363 Jones Road is generally away from the site towards the eastern views with an earth bund/cutting on the Jones Road frontage. Jones Road providing additional physical separation from the site. 380 Jones Road – this property has recently constructed two relocatable tiny homes on the site. These are oriented away from the southern fill site and are screened by the pine shelterbelt within the property. 1870 Hunua Road – views towards the southern fill are screened by trees within this property and off site shelterbelts. 2189 Ponga Road – views are largely screened by vegetation. 2169 Ponga Road – views are largely screened by vegetation. 63 Gillespie Road – views towards the southern fill site are largely screened by vegetation within this property (refer to Figure 1). 5 Middleton Road – views partially screened by vegetation (refer to Figure 3) 8 Middleton Road – views entirely screened by vegetation (refer to Figure 3) 27 Middleton Road – views entirely screened by vegetation (refer to Figure 3) 51 Middleton Road – dwelling elevated at RL 260m with extensive views. Northern fill site is in excess of 1.2km away and southern fill site will be viewed sitting low in the landscape at RL 205m (refer to Figure 2).	
		Further Response 27-02-2025 **See Jones Road Managed Fill_s92 request_Landscape Response_27.02.2025.doc**	18-03-2025 SCLA - **Resolved**
11(h)	The visual effects assessment has generally adopted representative viewpoints (with the proposed fill modelled as visual simulations). This approach has resulted in a number of the potentially affected identified individuals (as at 6.32), being left out of the assessment. With respect to Viewpoint 2, it is not clear if the representative view also includes consideration of #345 and 363. Similarly, with respect to Viewpoint 5, no assessment is provided for 1800 Hunua Road (mis-identified in para 6.29 as 1500 Hunua Road?), and 27 Gillespie Road. Please amend the assessment to ensure that all identified potentially affected individuals are thoroughly assessed	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** The outlook from the dwelling at 345 Jones Road is generally away from the site towards the eastern views with a hedged frontage to Jones Road with the road providing additional physical separation from the site. Shadowing effects of the proposal are less than that possible through permitted shelterbelt planting along the site boundary. The owner of 345 expressed no definitive opinion on the proposal to the applicant (refer to the AEE). The outlook from the new dwelling at 363 Jones Road is generally away from the site towards the eastern views with an earth bund/cutting on the Jones Road frontage. Jones Road providing additional physical separation from the site. The owners/occupiers of 363A and 363B expressed no concerns to the applicant with the filling activity occurring (refer to the AEE). Views towards the southern fill will be visible from 27 Gillespie Road. The fill (RL 205m) will sit below the ridge behind at RL 215m). The northern fill is in excess of 750m away and will be viewed within the context of the wider rural landscape.	~~13-02-2025~~ ~~SCLA - **Unresolved**~~ ~~Comments as per above with respect to the need to supply a determination of the construction, short term and longer term potential adverse effects, and as per the identified properties.~~

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
		Views towards the southern fill will be visible from 1800 Hunua Road. The fill (RL 205m) will sit below the ridge behind at RL 215m). The northern fill is in excess of 650m away and will be viewed within the context of the wider rural landscape.	
		Further Response 27-02-2025 **See Jones Road Managed Fill_s92 request_Landscape Response_27.02.2025.doc**	18-03-2025 SCLA - **Resolved**
11(i)	Please clarify if any internal lighting is proposed, and if yes, has this been considered in the assessment?	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** No lighting is proposed. The site will operate between the hours of 7:00am and 6:00pm Monday to Friday, 7:00am and 1:00pm on Saturdays. There will be no activity on Sundays and public holidays.	13-02-2025 SCLA - **Resolved**
11(j)	Has the ALVE taken into consideration any land modification and resulting potential adverse landscape / visual effect of the internal access road?	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** Minor earthworks will be required for the internal access road. Road batters will be grassed following construction, and the road will appear similar to other access roads within the surrounding rural environment.	13-02-2025 SCLA - **Resolved**
11(k)	Has consideration been given to the potential for effects arising from the visual difference in colour which may arise from the fill material, being different from the distinctive local soils? Does this have the potential for a greater level of visibility and effect?	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** The visual contrast between the exposed fill and surrounding pastoral and vegetated landscape will visually highlight the presence of the managed fill. Exposed areas of the fill are restricted to 2ha and will be reinstated with grass which will reduce potential adverse effects	13-02-2025 SCLA - **Resolved**
11(l)	A recently constructed / relocated dwelling located immediately adjacent to the western boundary of the site within #1821 has not been included in the assessment. Please provide comment.	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** The relocated dwelling at 1821 is oriented away from the site and screened from the southern fill by the intervening ridge (refer to Figure 4).	~~13-02-2025~~ ~~SCLA - **Unresolved**~~ ~~Views are possible to southern edge of the fill area and the access. Please provide assessment for occupants of this dwelling.~~

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
		Further Response 27-02-2025 **See Jones Road Managed Fill_s92 request_Landscape Response_27.02.2025.doc**	~~18-03-2025~~ ~~SCLA - **Unresolved**~~ ~~The supporting image provided in the response is taken from the northern portion of the fill area whilst the image below illustrates the view to this dwelling from the southern part of the Site near the entrance. It is not clear if the assessment has considered views from the dwelling to this southern portion of the Site, including vehicle activity of trucks entering and exiting the Site.~~ 
		Rob Pryor, LA4 28-03-2025 Refer attached Technical Memo 25/03/2025	04-04-2025 SCLA - **Resolved**
11(m)	Little consideration is given to the detail of individual dwellings, such as the primary outlook / orientation, and the nature of the existing outlook. In some cases - such as #353 and 345, the primary outlook is to the east and away from the site. In the case of the dwelling within 332, the main outlook is to the north west and south west - with the latter (being the outlook over the site) being the main view across the valley. In this latter case, it would be helpful to better understand the degree of view loss that would occur as a result of the proposal. Please provide comment.	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** Repetition – covered above under 11(g) and 11(h).	~~13-02-2025~~ ~~SCLA - **Unresolved**~~ ~~Comments as per 11(g) and 11(h)~~
		Further Response 27-02-2025 **See Jones Road Managed Fill_s92 request_Landscape Response_27.02.2025.doc**	18-03-2025 SCLA - **Resolved**

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
11(n)	With regard to #332, the staging plan included as 33250/130 in the lodged plans shows a noise bund constructed along the western boundary of this property. It is recommended that a cross section be included showing how the noise bund relates to the dwelling within #332, and the assessment should be expanded to include comment on this element. Similarly, a bund is proposed to the west of #353. It is recommended that a cross section be included showing how the noise bund relates to the dwelling within #353, and the assessment should be expanded to include comment on this element. Also, is it proposed that the bund be planted?	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** Refer to Fraser Thomas drawings 33250/130 and 33250/131.  	~~13-02-2025~~ ~~SCLA - **Unresolved**~~ ~~Partially resolved. As determined above, a detailed assessment is required for the two identified properties (#332 and #353).~~
		Further Response 27-02-2025 **See Jones Road Managed Fill_s92 request_Landscape Response_27.02.2025.doc**	18-03-2025 SCLA - **Resolved**
11(o)	The assessment provides little detail (in some instances) with regard to the staging of the proposal	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)**	~~13-02-2025~~ ~~SCLA - **Unresolved**~~

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
	and how this will affect individuals over time. Please provide comment.	Refer to 11(a) above.	~~Comments as per 11(a)~~
		Further Response 27-02-2025 **See Jones Road Managed Fill_s92 request_Landscape Response_27.02.2025.doc**	18-03-2025 SCLA - **Resolved**
11(p)	The assessment does not comment in any detail on the potential effect that will be generated by vehicle activity on the visual amenity of individuals. This matter is briefly addressed in the section conclusion (6.68) but should be considered at a more detailed level in relation to specific properties / individuals.	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** As outlined in the LVA on-site truck and plant movements would be visible entering into and exiting the site and this is considered to be of low visual impact. Trucks are a familiar sight in this rural environment with frequent stock movements throughout the area as well as trucking movements associated with the Hunua Quarry. The key things to note are: ▪ The orientation of dwellings relative to the site. ▪ Minimal onsite machinery other than trucks during hours of operation. ▪ No vehicle access from Jones Road. ▪ Temporary stabilised access roading, tip heads and vehicle turning circle areas will be constructed for each stage of filling. These roads will be progressively extended and/or relocated for each stage of filling, as required. Temporary access road details will be provided ahead of each stage of filling for Council approval.	13-02-2025 SCLA - **Resolved**
11(q)	In some instances (Viewpoints 2, 3 and 5) the assessed level of effect for either the short term / temporary effect, or the long term effect has been omitted. The assessment should provide an assessed level of effect for all the identified potentially affected individuals / groups, and should state the timeframe assumed when referring to 'short term / long term'	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** The staged nature of managed fills makes it difficult to predict the duration of effects. A maximum area of 2ha of exposed earth will result in incremental changes to the view and on completion the exposed area will be reinstated. The managed fill operation is for a period of 5-10 years (or sooner as if often the case). The visual effects of the proposed managed fill would initially be noticeable during filling operations. At completion (5-10 years) the final landform of the northern fill would have a more elevated topography than existing with the broad spur being filled to form the new hill slope and re-established in pasture and return to productive rural use. The site would be reinstated incrementally with pasture to ensure that the potential for visual effects is reduced. Where visible, this change would appear sympathetic with that of the surrounding Hunua landscape and is not considered adverse in terms of visual effects.	~~13-02-2025~~ ~~SCLA - **Unresolved**~~ ~~SCLA: The response to 11(q) does not address potentially affected individuals as requested. This information should be included in the requested additional detail above in 11(c).~~
		Further Response 27-02-2025 **See Jones Road Managed Fill_s92 request_Landscape Response_27.02.2025.doc**	18-03-2025 SCLA - **Resolved**
11(r)	In some instances, the assessment has grouped residential receptors and road users. Generally, residential receptors are considered to have a greater degree of sensitivity compared to	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** The LVA has assessed these groups separately. Road users were addressed in paragraphs 6.61 and 6.62.	13-02-2025 SCLA - **Resolved**

Section 92 Request for Information: BUN60440759 – 362 Jones Road, Drury			
Item	**Information Request**	**Applicant's Response (12/02/2025)**	**Council Response (as dated)**
	transitory individuals such as road users (including Viewpoints 4 and 5). Please ensure that the assessed level of effect takes into account these differences.		
11(s)	it is recommended that consideration be given to proposing landscape mitigation for potentially affected individuals that are situated proximate to the site and have the potential to be adversely affected	**Rob Pryor, LA4 (refer Attachment 5 Technical Memo 04/02/2025)** As part of the assessment process, mitigation planting in the form of shelterbelts or hedging around the site boundaries was investigated. This was not considered necessary and would result in increased shading and loss of open views for the affected parties.	13-02-2025 SCLA - **Resolved**

Figures relating to item 5(c):

Figure 1: Existing culvert catchment

Overland Flow Paths - 3ha to 100ha (25,000)

Peak Flow 100yr Future 3.8 degree (m3/s)	Peak Flow 10yr Future 3.8 degree (m3/s)	Peak Flow 2yr Future 3.8 degree (m3/s)	Catchment Area (m2)	Impervious Future (%)
2.097	1.07786	0.3761	62010	17.11037
2.11762	1.08865	0.37985	62001	17.11213
2.48973	1.29455	0.43617	62388	15.34854
4.43001	2.30176	0.80118	132108	16.23507

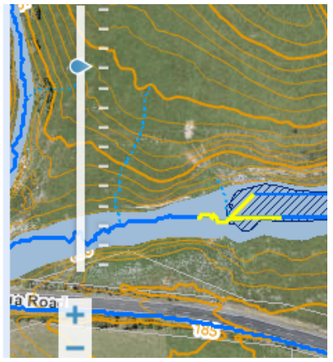


Figure 2: Combined catchment, downstream of subject site

Overland Flow Paths - 3ha to 100ha (25,000)

Peak Flow 100yr Future 3.8 degree (m3/s)	Peak Flow 10yr Future 3.8 degree (m3/s)	Peak Flow 2yr Future 3.8 degree (m3/s)	Catchment Area (m2)	Impervious Future (%)
16.05161	8.23744	2.76529	568138	11.05789
6.00109	3.09621	1.0587	212546	13.19126
22.32028	11.3159	3.80072	784115	11.60967

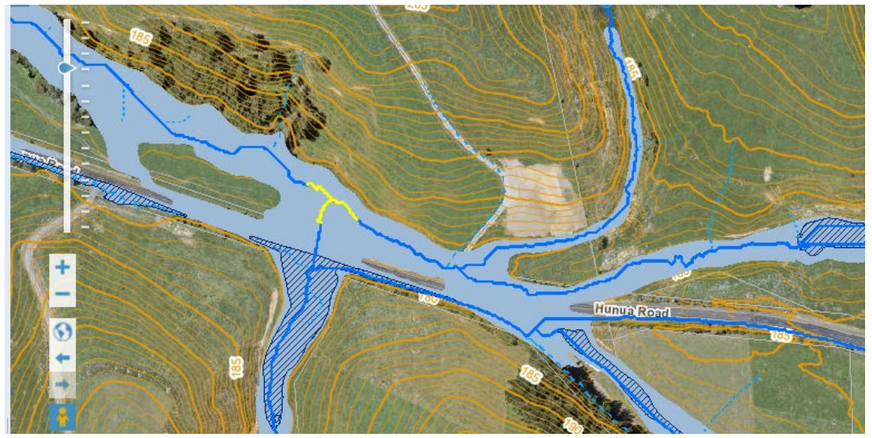


Figure 3: Locations of existing culvert and downstream analysis point

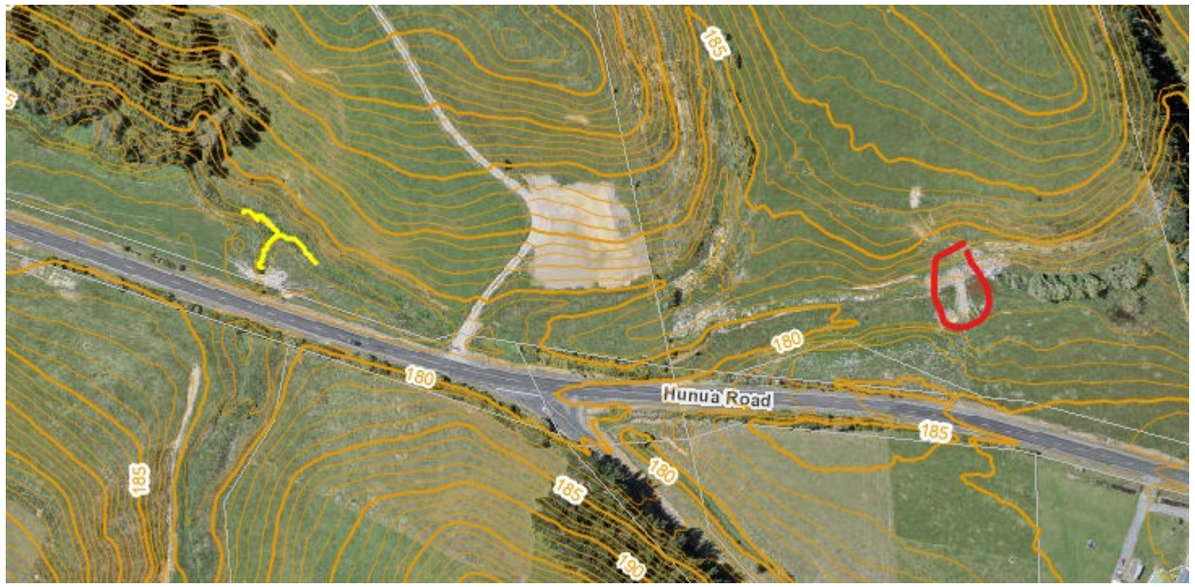

185
180
Hunua Road
130
185
185
130
185
130

Figure 4: Flood prone area information

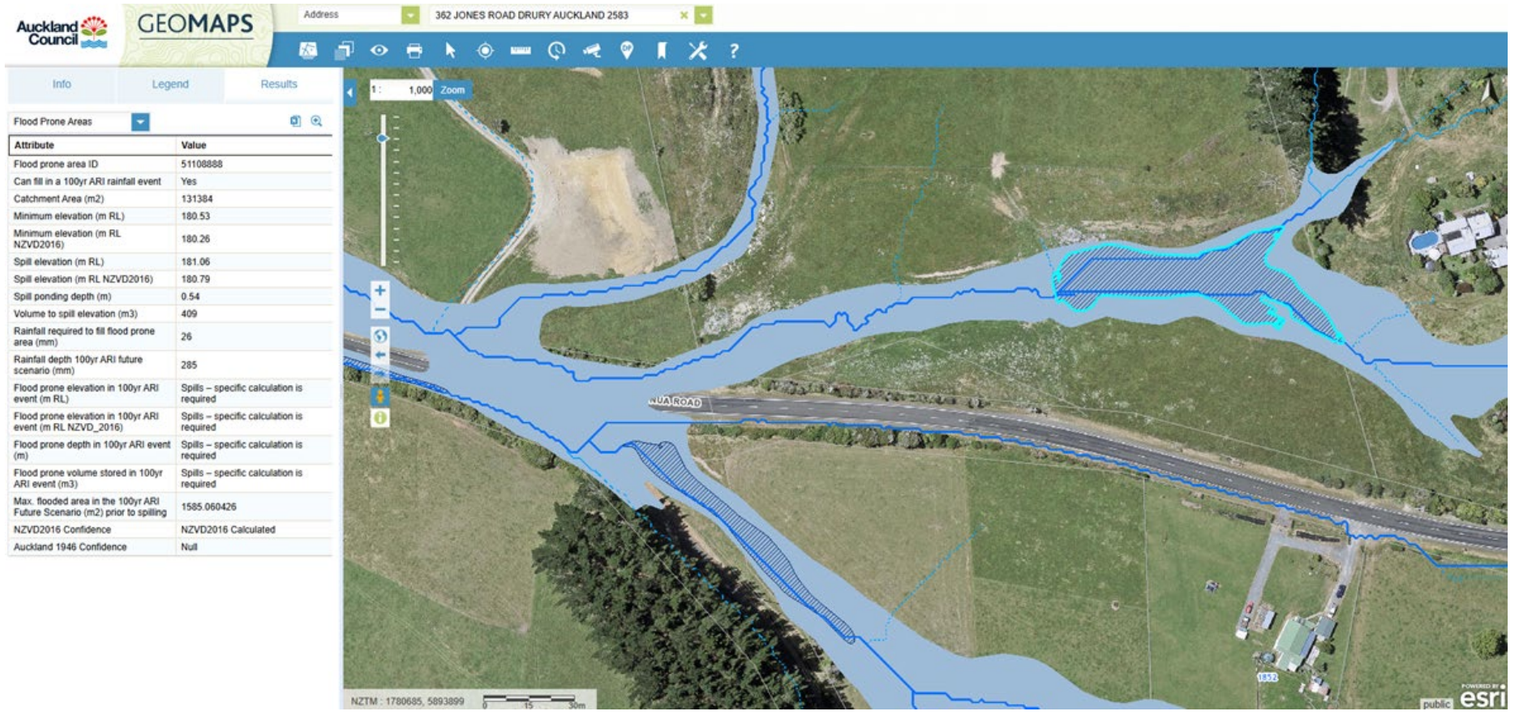
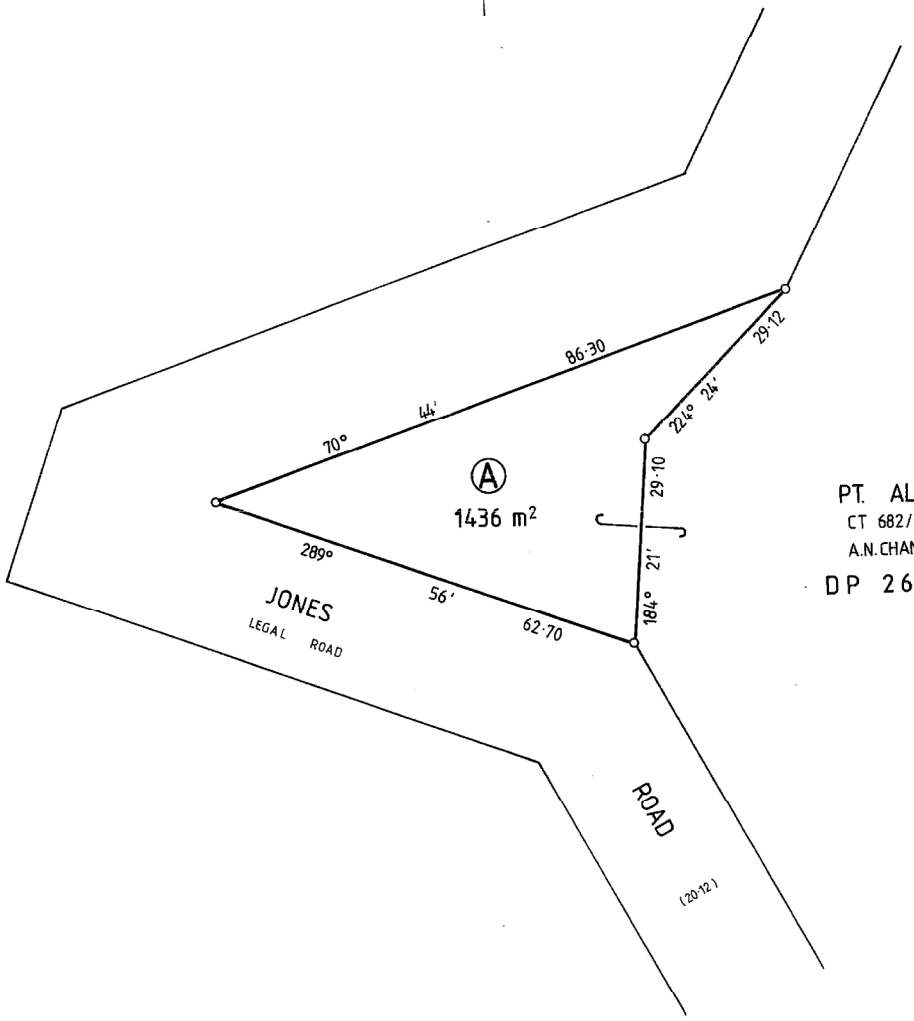


Figure 5: Existing culvert crossing



Approved

LAND TO BE TAKEN FOR ROAD

SHOWN	DESCRIPTION	CT	AREA
Ⓐ	PT. ALLOT 10 HUNUA PSH (DP 26748)	682/270	1436 m²

Total Area 1436 m²

Comprised in CT 682/270 PT.

I, PETER VERNON MCINNES OF PAPAKURA

Registered Surveyor and holder of an annual practising certificate (or who may act as a registered surveyor pursuant to the proviso to section 33(2) of the Surveyors Act 1966) hereby certify that this plan has been made from surveys executed by me or under my directions, that both plan and survey are correct and have been made in accordance with the Survey Regulations 1972.

Dated at PAPAKURA *this* 28th *day of* September 1987 *Signature* P V McInnes

Field Book 7848 *p.* 130-139 *Traverse Book* 1124 *p.* 54-55

Reference Plans

Examined A. Fraser. *Correct* A Hodson

Approved as to Survey

12/10/87 Asst Chief Surveyor

Deposited this ..... **day of** ..... **19** ....

District Land Registrar

3380

File 5/3093 *Received* OCT 1987 *Instructions*

SO 62090

LAND DISTRICT NORTH AUCKLAND

SURVEY BLK. & DIST. I OPAHEKE

NZMS 261 SHT ...R11.... **RECORD MAP No** I Opaheke

PLAN OF LAND TO BE TAKEN FOR ROAD

TERRITORIAL AUTHORITY FRANKLIN COUNTY

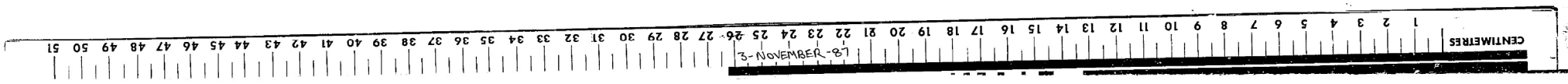
Surveyed by ROWE, MCINNES & READ

Scale 1:500 **Date** JULY 1987

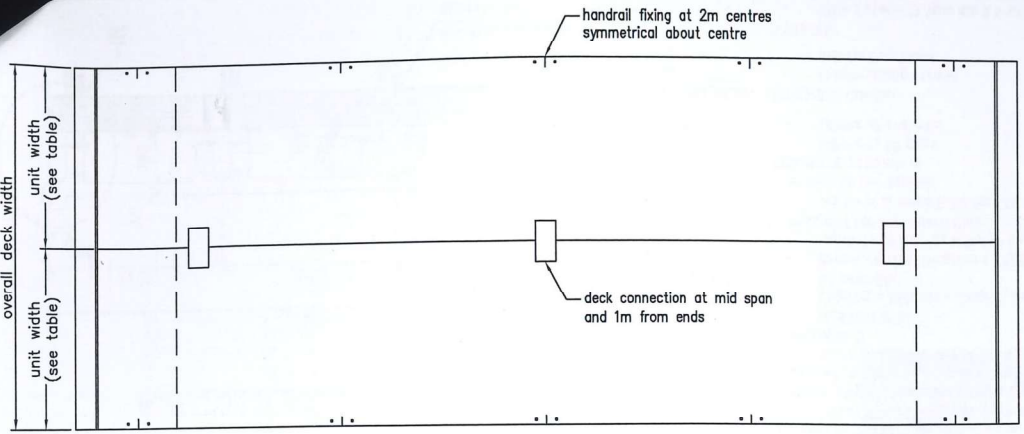
L & S FORM N93

W.N. HAWKEY, SURVEYOR GENERAL, DEPARTMENT OF LANDS AND SURVEY WELLINGTON NEW ZEALAND

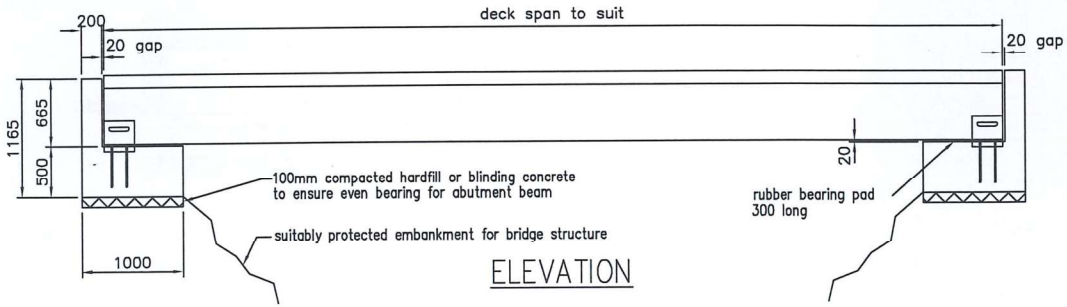
Printed by Littlejohns Wellington, New Zealand



EXAMPLE 1



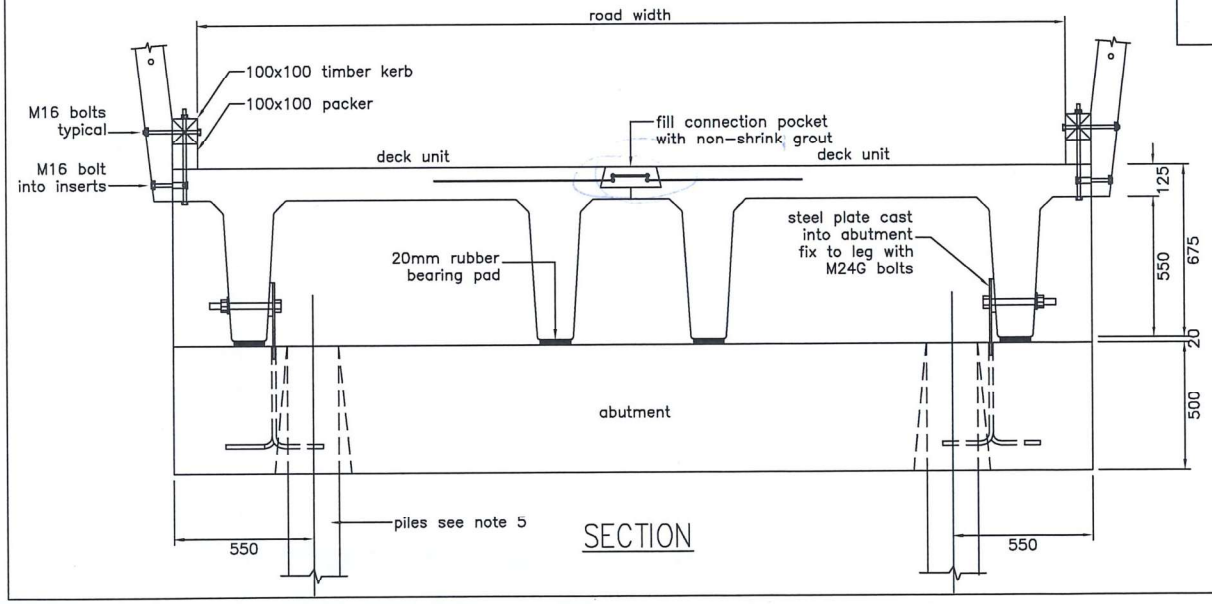
PLAN VIEW



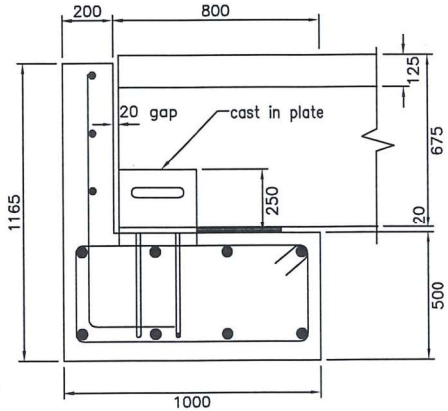
ELEVATION

LOADING	WIDTH OF EACH UNIT	MAX. SPAN BEARING PAD CENTRES	MAX. WEIGHT OF EACH UNIT
HN–HO 72 full M.O.W bridge design load	1.8m	12.5m	13.0t
0.85 x HN (CLASS 1)	1.8–2.1m	14.0m	16.8t
STOCK & LIGHT VEHICLES 7 tonne gross	1.8–2.1m	20.0m	24.0t

1. HN–HO LOADING TO BE USED IN THE FOLLOWING CASE
   - :the bridge is on a road with a traffic count of no more than 100 vehicles per hour.
   - :there is a possibility of the road becoming a through route.
   - :vehicle speeds can exceed 70 km/h on the bridge.
   - :the bridge provides access to land which may be subject to extensive forest development.
2. 0.85 x HN (CLASS 1) LOADING
   - :may be used where none of the above conditions apply.
3. LIGHT DUTY BRIDGES MAYBE USED
   - :where the load limit can be clearly sign posted and...
   - :where alternative access such as a ford is available for heavy vehicles.
4. ABUTMENTS
   - :should be placed on a level pad of compacted gravel or weak mix concrete.
5. PILES SHOULD BE DRIVEN THROUGH THE HOLES PROVIDED IF ANY OF THE FOLLOWING APPLY.
   - :the abutments may be subjected to scouring.
   - :the bridge may trap flood debris
6. PILES
   - :should be driven below the depth of anticipated scouring, cut flush with the abutment bearing surface and concreted into the abutment.
7. DURABILITY
   - :minimum of 50 year design life.
   - :for marine environment applications, special consideration is required.



SECTION



SECTION @ ABUTMENT

12m Double Tee Bridge for Mike Burmister Namu Road, Mangaramarama

RURAL BRIDGE by

stresscrete

Notes:
1. Indicative staging from dwg 130 Rev A
2.

DWDD 1B
Type 2

Sediment retention pond 2
As per FTL drawing
33250/170, pond size based
on 2Ha area open at one time

DWDD 2
Type 1

DWDD 1A
Type 2

To be filled when SRP1 removed

DWD

Sediment retention pond 1
As per FTL drawing
33250/170, pond size based
on 2Ha area open at one time

Catchment
area 59,860m²

3

Catchment
area 30,180m²

2

1

DWD

Northern Filling Area

Property boundary

4

5

DWDD 3
Type 1

Legend

- 12 — Existing contours (@5m intervals)
- 12 — Proposed contours (@2m intervals)
- Dirty water diversion drain (DWDD)
- SF — Silt fence
- Property boundary
- Permanent / intermittent stream
- Stream 10m setback
- Wetland
- Wetland 10m setback
- Pond
- Extent of Filling Area

0 30 60
Scale 1: 1500 m

NOT FOR CONSTRUCTION

P:\33 series\33250\03 Drawings\33250-121-122.dwg, fvohra, 17/1/2025 2:47 pm

			APPROVED	DATE
SURVEYED			SF	
DESIGNED	TB	06.09.24	27.09.24	
DRAWN	FV	06.09.24		
CHECKED	TB	06.09.24		

REVISION	CHANGES	CHECKED	DATE
A	SILT FENCE REMOVED	SF	15.01.25

NOTES
1. Existing Ground Contour data obtained from LiDAR 2016.
2. Filling Area area will be staged. Open area to be progressively stabilised. Locations of final SRPs are shown indicatively, but other SRPs may be constructed as a part of the construction methodology.
3. All works to be carried out in accordance with the Auckland Council Technical Publication GD05 Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region (GD05 June 2016).
4. Streams, wetlands and ponds from Boffa Miskell Ecological report (2024).

PROJECT DATUMS:
LEVEL: Auckland Vertical Datum 1946
COORDINATE: NZGD2000 / Mount Eden 2000

CLIENT
SCARBRO ENVIRONMENTAL LTD

PROJECT
362 JONES RD, HUNUA

TITLE
PROPOSED NORTHERN EROSION AND SEDIMENT CONTROL PLAN

Fraser Thomas
ENGINEERS · RESOURCE MANAGERS · SURVEYORS
AUCKLAND 09 278 7078
HAWKE'S BAY 06 211 2766
CHRISTCHURCH 03 358 5936
BLENHEIM 03 428 3292
NELSON 03 222 1132
TAURANGA 020 4118 9465
www.fraserthomas.co.nz

STATUS
FOR RESOURCE CONSENT
Construction works shall commence only on receipt of and in accordance with the Council or Council organisation stamped approved drawings, unless otherwise indicated.

SCALE 1:1500 (A3)
DRAWING No 33250/121
REVISION A

Note: Indicative staging from dwg 130 Rev A

Removed and return to sheet flow

DWDD 1B
Type 2

DWDD 1A
Type 2

Sediment retention pond 2
As per FTL drawing
33250/170, pond size based
on 2Ha area open at one time

DWDD 2
Type 1

Sediment retention pond 1
As per FTL drawing
33250/170, pond size based
on 2Ha area open at one time

Catchment
area 59,860m²

Catchment
area 30,180m²

Northern Filling Area

Property boundary

DWDD 3
Type 1

Stop DWD here so that area A1 = A2 to compensate for area A2 that has to go to SRP 1

Legend

- Existing contours (@5m intervals)
- Proposed contours (@2m intervals)
- Dirty water diversion drain (DWDD)
- Silt fence
- Property boundary
- Permanent / intermittent stream
- Stream 10m setback
- Wetland
- Wetland 10m setback
- Pond
- Extent of Filling Area

0 30 60
Scale 1: 1500 m

NOT FOR CONSTRUCTION

P:\33 series\33250\03 Drawings\33250-121-122.dwg, kvohra, 17/1/2025 2:47 pm

SURVEYED			APPROVED DATE
DESIGNED	TB	06.09.24	SF 27.09.24
DRAWN	FV	06.09.24	
CHECKED	TB	06.09.24	

REVISION	CHANGES	CHECKED	DATE
A	SILT FENCE REMOVED	SF	15.01.25

NOTES

1. Existing Ground Contour data obtained from LiDAR 2016.
2. Filling Area area will be staged. Open area to be progressively stabilised. Locations of final SRPs are shown indicatively, but other SRPs may be constructed as a part of the construction methodology.
3. All works to be carried out in accordance with the Auckland Council Technical Publication GD05 Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region (GD05 June 2016).
4. Streams, wetlands and ponds from Boffa Miskell Ecological report (2024).

PROJECT DATUMS:

LEVEL:	Auckland Vertical Datum 1946
COORDINATE:	NZGD2000 / Mount Eden 2000

CLIENT

SCARBRO ENVIRONMENTAL LTD

PROJECT

362 JONES RD, HUNUA

TITLE

PROPOSED NORTHERN EROSION AND SEDIMENT CONTROL PLAN

Fraser Thomas
ENGINEERS RESOURCE MANAGERS SURVEYORS

AUCKLAND	09 278 7078
HAWKE'S BAY	06 211 2766
CHRISTCHURCH	03 358 5936
BLENHEIM	03 428 3292
NELSON	03 222 1132
TAURANGA	020 4118 9465

www.fraserthomas.co.nz

STATUS

FOR RESOURCE CONSENT

Construction works shall commence only on receipt of and in accordance with the Council or Council organisation stamped approved drawings, unless otherwise indicated.

SCALE 1:1500 (A3)

DRAWING No 33250/121

REVISION A

Technical Memo

To: Vance Hodgson
HPC Planning Consultants
Pukekohe

From: Rob Pryor
Director | Registered Landscape Architect
LA4 Landscape Architects Ltd

Date: 4 February 2025

BUN60440759 – 362 Jones Road, Drury

In regard to Council's s92 Request for Further Information, I provide the following responses:

11. Landscape

11 (a) *The proposal is described in section 2 of the Assessment of Landscape and Visual Effects (ALVE) as a series of 'bullet points'. With the exception of the visual simulations, no figures have been included in the assessment to illustrate the detail of the proposal. To fully understand the proposal, it is recommended that figures illustrating:*

1. *the staging of the proposal in relation to the contextual landscape and potentially affected individuals;*

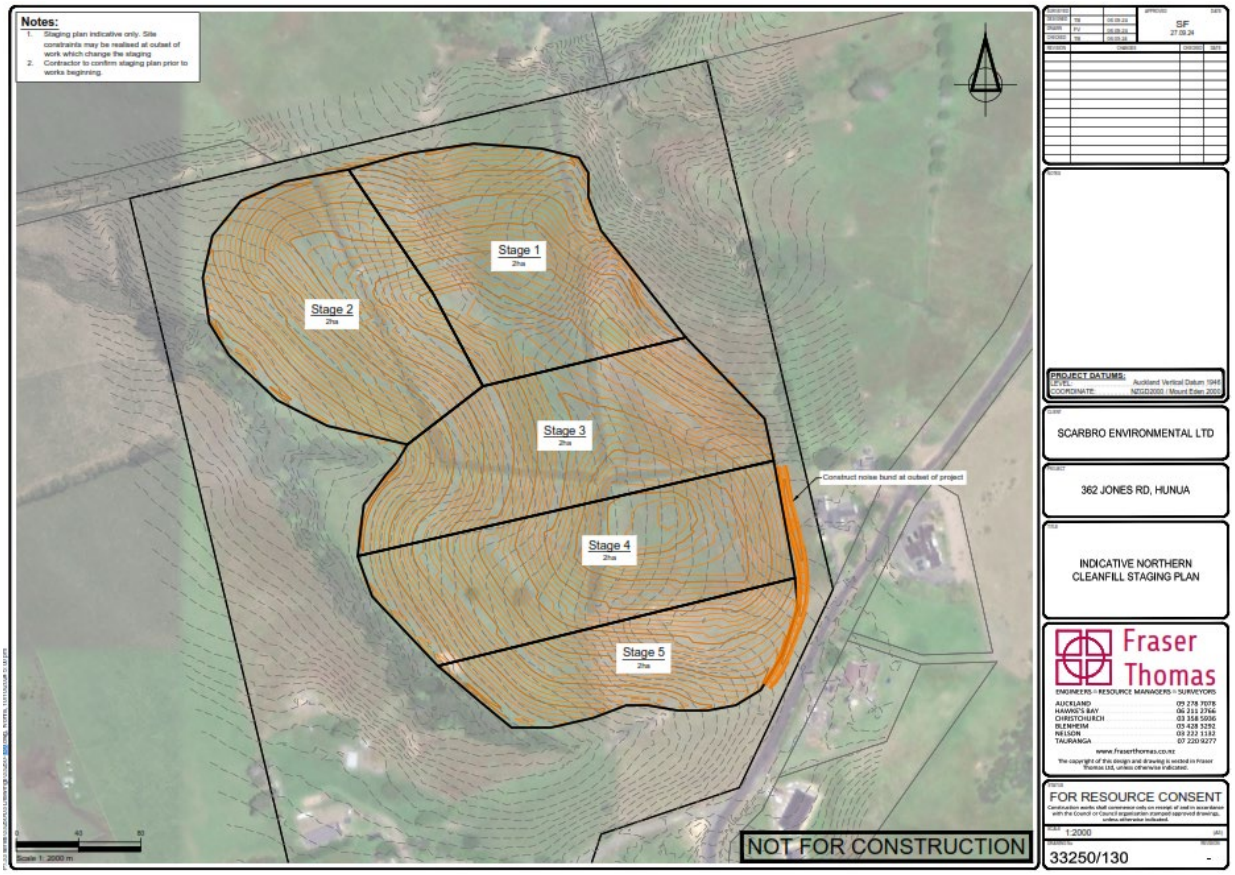
2. *how the proposed fill areas relate to the contextual landform (in addition to a plan, this should also include extended cross sections based on those contained in the lodged engineering plans to determine whether the slopes of the proposed landform are sympathetic to / are consistent with the existing topography);*

The description of the proposal should also be expanded to include discussion of the proposed staging and activity within the site (including vehicle activity).

Response:
Paragraphs 104-130 of the AEE outline the proposed staging. The managed fill deposition will be staged so that a maximum area of 2ha is being filled at any one time. Preliminary staging plans are shown on drawing 33250/130. The staging is indicative only, as the filling will be an iterative process, with filling areas changing as required to build the final platforms. The staging plan may also need to be changed as site constraints and operational constraints are realised during either detailed design or once SEL has established on site.

At the pre-application meeting Auckland Council agreed that staging could be responsive rather than prescribed particularly for Erosion and Sediment controls, but a plan has been included in the application. Staging is also controlled by the maximum 2ha area of exposure at any time. Refer to Figure 1 overleaf.

It is not considered necessary to prepare cross sections. The proposed contour plans clearly illustrate the final form of the managed fill.



11 (b) *The inclusion of additional figures would be helpful to understand the themes and issues described in section 4 (the site and surrounding landscape). Such figures should illustrate the key topographical features both of the site and contextual landscape. This will assist with the understanding of the terrain and visual catchment.*

Response:
Photographs of the site and surrounding area are included in the LVA and in the visual impact photosimulations. It is presumed that the reviewer has undertaken site investigations and would be familiar with the existing environment. Photographs are included in Annexure 1 illustrating the outlook to the surrounding area from both the northern and southern fill areas.

11 (c) *It is recommended that a plan be included that illustrates the location of potentially affected individuals / viewer groups identified in section 6. The assessment comments on the relatively small scale and complexity of the landscape / topography and opines that this is helpful in enabling the integration of new landform of a similar scale, but at the same time, a small scale landscape with intimate views is also more sensitive to change. The suggested illustrative figures should seek to demonstrate how the potentially affected individuals are situated within their respective visual catchments and how they are situated in relation to the proposed fill areas.*

11 (g) *From 6.26 onwards, the ALVE discusses visual effects. Potentially affected individuals are identified in paragraph 6.29. My preliminary assessment suggests that the lists of potentially affected individuals is deficient, and I have attached a rough figure showing additionally potentially affected residential individuals (noting that, in section 6.58, Distant residents within some of the elevated landholdings in the surrounding area appear to be classified as individuals in excess of 500m from the Site). It is recommended that further consideration be given to the identified affected individuals, and additional assessment be undertaken to capture any individuals previously omitted.*

Response:
The reviewer has usefully provided a marked up aerial of potentially affected parties (attached as Annexure 2). In terms of the potential effects of additional properties identified I would make the following comments:

332 Jones Road – addressed in the LVA (paras 6.38-6.42).

345 Jones Road – views will be partially screened by the hedge along the road boundary. Views largely oriented to the north away from the site.

353 Jones Road – addressed in the LVA (paras 6.43-6.47).

363 Jones Road – the outlook from the new dwelling at 363 Jones Road is generally away from the site towards the eastern views with an earth bund/cutting on the Jones Road frontage. Jones Road providing additional physical separation from the site.

380 Jones Road – this property has recently constructed two relocatable tiny homes on the site. These are oriented away from the southern fill site and are screened by the pine shelterbelt within the property.

1870 Hunua Road – views towards the southern fill are screened by trees within this property and off site shelterbelts.

2189 Ponga Road – views are largely screened by vegetation.

2169 Ponga Road – views are largely screened by vegetation.

63 Gillespie Road – views towards the southern fill site are largely screened by vegetation within this property (refer to Figure 1).

5 Middleton Road – views partially screened by vegetation (refer to Figure 3)

8 Middleton Road – views entirely screened by vegetation (refer to Figure 3)

27 Middleton Road – views entirely screened by vegetation (refer to Figure 3)

51 Middleton Road – dwelling elevated at RL 260m with extensive views. Northern fill site is in excess of 1.2km away and southern fill site will be viewed sitting low in the landscape at RL 205m (refer to Figure 2).

11(d) *Landscape effects are discussed in paragraph 3.16 onwards. The analysis is lacking comment on cultural values, and it is recommended that the landscape assessment commentary highlight any relevant Māori cultural landscape values and address any potential impacts on these values.*

Response:
Auckland Council's Cultural Heritage Inventory does not identify any cultural heritage features located within the site and there are also no historic heritage features shown for the site on the Auckland Unitary Planning Maps.

The Auckland Council's GIS identifies that the site is within the Statutory Acknowledgement Area of Ngati Tamaoho. Respecting the Statutory Acknowledgement, the applicant has engaged with Ngati Tamaoho which included an onsite hui to understand areas of significance, values and interests. The advice from Ngati Tamaoho provided to the applicant (and appended to the application). is as follows:

The Hunua Awa runs south from the Hunua Ranges Kohukohunui, within an area containing a wide range of sites from defensive pā to mahinga kai, urupa to marae, and awa to tuahu. The variety of the uses of the places in Te Hunua/Kohukohunui indicate the importance of the entire area as an interconnected whole to Ngāti Tamaoho.

Each of the individual places are important in their own right but their real significance can only be understood when considering the area as a whole. This is an area that has provided Ngāti Tamaoho with so much more than can be described in any historical narrative. It is part of the mauri of this people and is an absolutely fundamental part of their cultural identity.

As a place of food gathering the Hunua Awa was of almost unparalleled importance, with abundant eels and inanga.

Though Ngāti Tamaoho were an iwi who travelled greatly, the Hunua Ranges were an ancient defensive stockade which had protected our tūpuna for centuries. There were many defensive pā in the surrounding foothills including, Paparata, Te Maketu, Pihanga and Ngā Urukehu. The interior was a place of great tapu, although there were several sites of refuge that were only known to Ngāti Tamaoho and the other hapū of the area.

Te Hunua/Kohukohunui was also a place of immense spiritual importance for Ngāti Tamaoho.

Ngati Tamaoho have advised they are not opposed to this application for managed fill provided the following are provided for.

(i) That all waterways and wetland areas on both sided of the existing access are fenced for stock exclusion [this can be a 3 wire hotwire if cattle are to be grazed] and riparian planted with appropriate native plants.
(ii) That rock riprap is placed down the paddock for the road runoff to pass over prior to entering the waterway/wetland.
(iii) That super silt fencing is provided to prevent any silt from entering any of the waterways onsite.
(iv) If any flocculation is to be used that is to be organic.

It is not our place to express or interpret Māori cultural landscape values but in this case it is clear that Ngati Tamaoho have a particular interest in the protection and restoration of waterways and wetland areas. This will have positive landscape outcomes.

***11(e)** The assessment of landscape effects only considers the longer term level of effect - the landscape effect following completion of the fill activity. It is likely that temporary landscape effects will occur during the life of the consent and it is recommended that these be considered and discussed.*

Response:
While there will be short-term visual effects these would be entirely acceptable in the context of the site and surrounding working rural environment. The visual contrast between the exposed fill and surrounding pastoral and vegetated landscape will visually highlight the presence of the managed fill. Exposed areas of the fill are restricted to 2ha which will reduce potential adverse effects. These will reduce once grass is reinstated over the exposed areas.

***11(f)** It is recommended - when discussing temporary landscape effects - that comment be included regarding the effect that will be generated by vehicle activity within the site*

Response:
Truck movements will be visible, however within the context of the rural environment and proximity to the Hunua Quarry, these will not be incongruous. In the long-term, once filling is completed, the potential adverse visual and landscape effects of the changed landscape would be entirely acceptable as the modified landform is reinstated in pasture and becomes integrated into the surrounding rural landscape.

***11(h)** The visual effects assessment has generally adopted representative viewpoints (with the proposed fill modelled as visual simulations). This approach has resulted in a number of the potentially affected identified individuals (as at 6.32), being left out of the assessment. With respect to Viewpoint 2, it is not clear if the representative view also includes consideration of #345 and 363. Similarly, with respect to Viewpoint 5, no assessment is provided for 1800 Hunua Road (mis-identified in para 6.29 as 1500 Hunua Road?), and 27 Gillespie Road.*

Response:
The outlook from the dwelling at 345 Jones Road is generally away from the site towards the eastern views with a hedged frontage to Jones Road with the road providing additional physical separation from the site. Shadowing effects of the proposal are less than that possible through permitted shelterbelt planting along the site boundary. The owner of 345 expressed no definitive opinion on the proposal to the applicant (refer to the AEE).

The outlook from the new dwelling at 363 Jones Road is generally away from the site towards the eastern views with an earth bund/cutting on the Jones Road frontage. Jones Road providing additional physical separation from the site. The owners/occupiers of 363A and 363B expressed no concerns to the applicant with the filling activity occurring (refer to the AEE).

Views towards the southern fill will be visible from 27 Gillespie Road. The fill (RL 205m) will sit below the ridge behind at RL 215m). The northern fill is in excess of 750m away and will be viewed within the context of the wider rural landscape.

Views towards the southern fill will be visible from 1800 Hunua Road. The fill (RL 205m) will sit below the ridge behind at RL 215m). The northern fill is in excess of 650m away and will be viewed within the context of the wider rural landscape.

11(i) *Please clarify if any internal lighting is proposed, and if yes, has this been considered in the assessment?*

Response:
No lighting is proposed. The site will operate between the hours of 7:00am and 6:00pm Monday to Friday, 7:00am and 1:00pm on Saturdays. There will be no activity on Sundays and public holidays.

11(j) *Has the ALVE taken into consideration any land modification and resulting potential adverse landscape / visual effect of the internal access road?*

Response:
Minor earthworks will be required for the internal access road. Road batters will be grassed following construction, and the road will appear similar to other access roads within the surrounding rural environment.

11(k) *Has consideration been given to the potential for effects arising from the visual difference in colour which may arise from the fill material, being different from the distinctive local soils? Does this have the potential for a greater level of visibility and effect?*

Response:
The visual contrast between the exposed fill and surrounding pastoral and vegetated landscape will visually highlight the presence of the managed fill. Exposed areas of the fill are restricted to 2ha and will be reinstated with grass which will reduce potential adverse effects.

11(l) *A recently constructed / relocated dwelling located immediately adjacent to the western boundary of the site within #1821 has not been included in the assessment. Please provide comment.*

Response:
The relocated dwelling at 1821 is oriented away from the site and screened from the southern fill by the intervening ridge (refer to Figure 4).

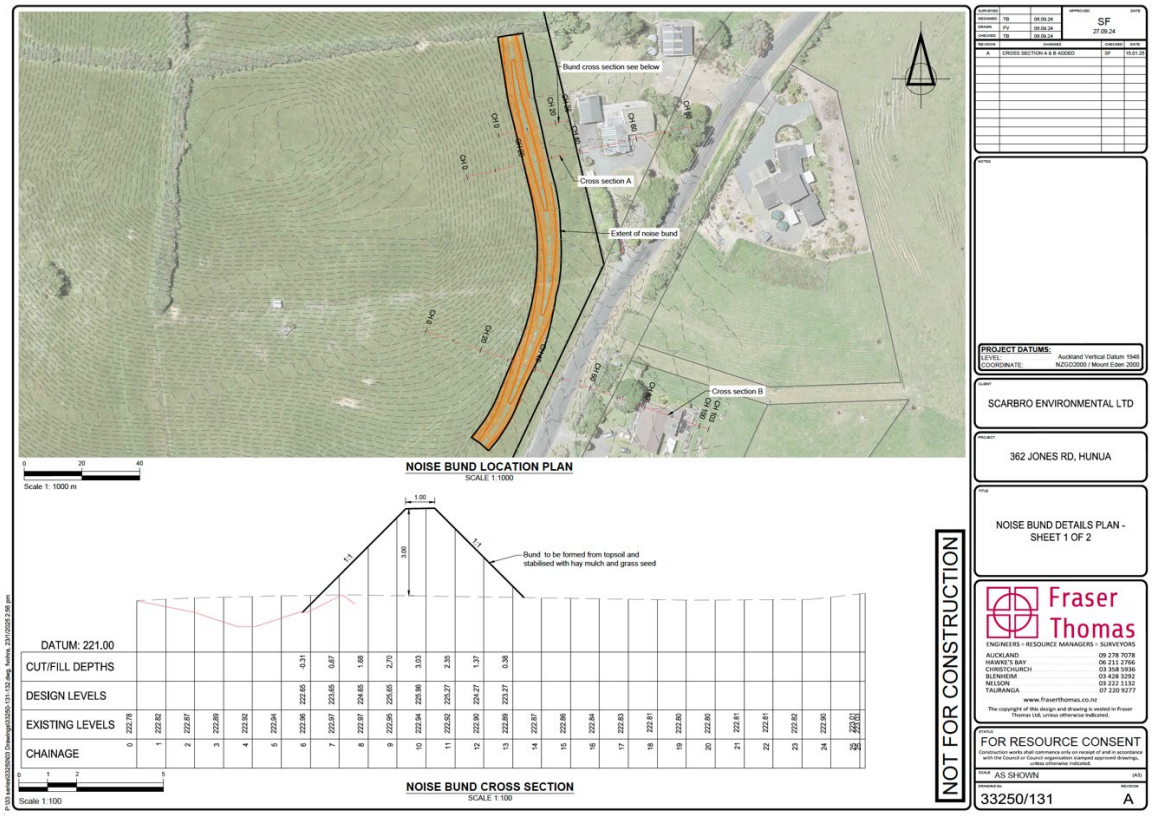
11(m) *Little consideration is given to the detail of individual dwellings, such as the primary outlook / orientation, and the nature of the existing outlook. In some cases - such as #353 and 345, the primary outlook is to the east and away from the site. In the case of the dwelling within 332, the main outlook is to the northwest and southwest - with the latter (being the outlook over the site) being the main view across the valley. In this latter case, it would be helpful to better understand the degree of view loss that would occur as a result of the proposal. Please provide comment.*

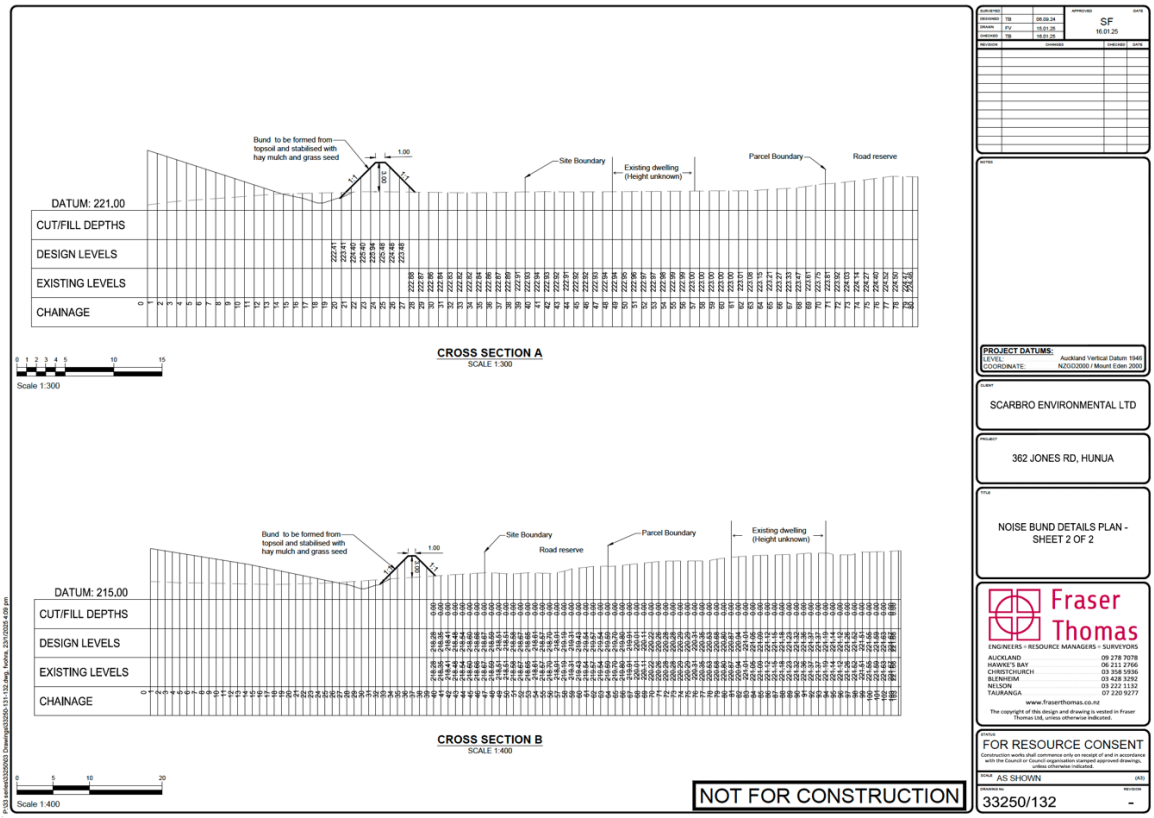
Response:
Repetition – covered above under 11(g) and 11(h).

11(n) *With regard to #332, the staging plan included as 33250/130 in the lodged plans shows a noise bund constructed along the western boundary of this property. It is recommended that a cross section be included showing how the noise bund relates to the dwelling within #332, and the assessment should be expanded to include comment on this element. Similarly, a bund is proposed to the west of #353. It is recommended that*

a cross section be included showing how the noise bund relates to the dwelling within #353, and the assessment should be expanded to include comment on this element. Also, is it proposed that the bund be planted?

Response:
Refer to Fraser Thomas drawings 33250/131 and 33250/132.





11(o) *The assessment provides little detail (in some instances) with regard to the staging of the proposal and how this will affect individuals over time. Please provide comment.*

Response:
Refer to 11(a) above.

11(p) *The assessment does not comment in any detail on the potential effect that will be generated by vehicle activity on the visual amenity of individuals. This matter is briefly addressed in the section conclusion (6.68) but should be considered at a more detailed level in relation to specific properties / individuals.*

Response:
As outlined in the LVA on-site truck and plant movements would be visible entering into and exiting the site and this is considered to be of low visual impact. Trucks are a familiar sight in this rural environment with frequent stock movements throughout the area as well as trucking movements associated with the Hunua Quarry. The key things to note are:

- The orientation of dwellings relative to the site.
- Minimal onsite machinery other than trucks during hours of operation.
- No vehicle access from Jones Road.
- Temporary stabilised access roading, tip heads and vehicle turning circle areas will be constructed for each stage of filling. These roads will be progressively extended and/or relocated for each stage of filling, as required. Temporary access road details will be provided ahead of each stage of filling for Council approval.

11(q) *In some instances (Viewpoints 2, 3 and 5) the assessed level of effect for either the short term / temporary effect, or the long term effect has been omitted. The assessment should provide an assessed level of effect for all the identified potentially affected individuals / groups and should state the timeframe assumed when referring to 'short term / long term'.*

Response:
The staged nature of managed fills makes it difficult to predict the duration of effects. A maximum area of 2ha of exposed earth will result in incremental changes to the view and on completion the exposed area will be reinstated. The managed fill operation is for a period of 5-10 years (or sooner as if often the case).

The visual effects of the proposed managed fill would initially be noticeable during filling operations. At completion (5-10 years) the final landform of the northern fill would have a more elevated topography than existing with the broad spur being filled to form the new hill slope and re-established in pasture and return to productive rural use. The site would be reinstated incrementally with pasture to ensure that the potential for visual effects is reduced. Where visible, this change would appear sympathetic with that of the surrounding Hunua landscape and is not considered adverse in terms of visual effects.

11(r) *In some instances, the assessment has grouped residential receptors and road users. Generally, residential receptors are considered to have a greater degree of sensitivity compared to transitory individuals such as road users (including Viewpoints 4 and 5). Please ensure that the assessed level of effect takes into account these differences.*

Response:
The LVA has assessed these groups separately. Road users were addressed in paragraphs 6.61 and 6.62.

11(s) *It is recommended that consideration be given to proposing landscape mitigation for potentially affected individuals that are situated proximate to the site and have the potential to be adversely affected.*

Response:
As part of the assessment process, mitigation planting in the form of shelterbelts or hedging around the site boundaries was investigated. This was not considered necessary and would result in increased shading and loss of open views for the affected parties.

I trust this clarifies these matters.

Rob J Pryor
Director | Tuia Pito Ora NZILA Registered Landscape Architect

Annexure 1: Photographs

Northern fill outlook to surrounding area

Southern fill outlook to surrounding area

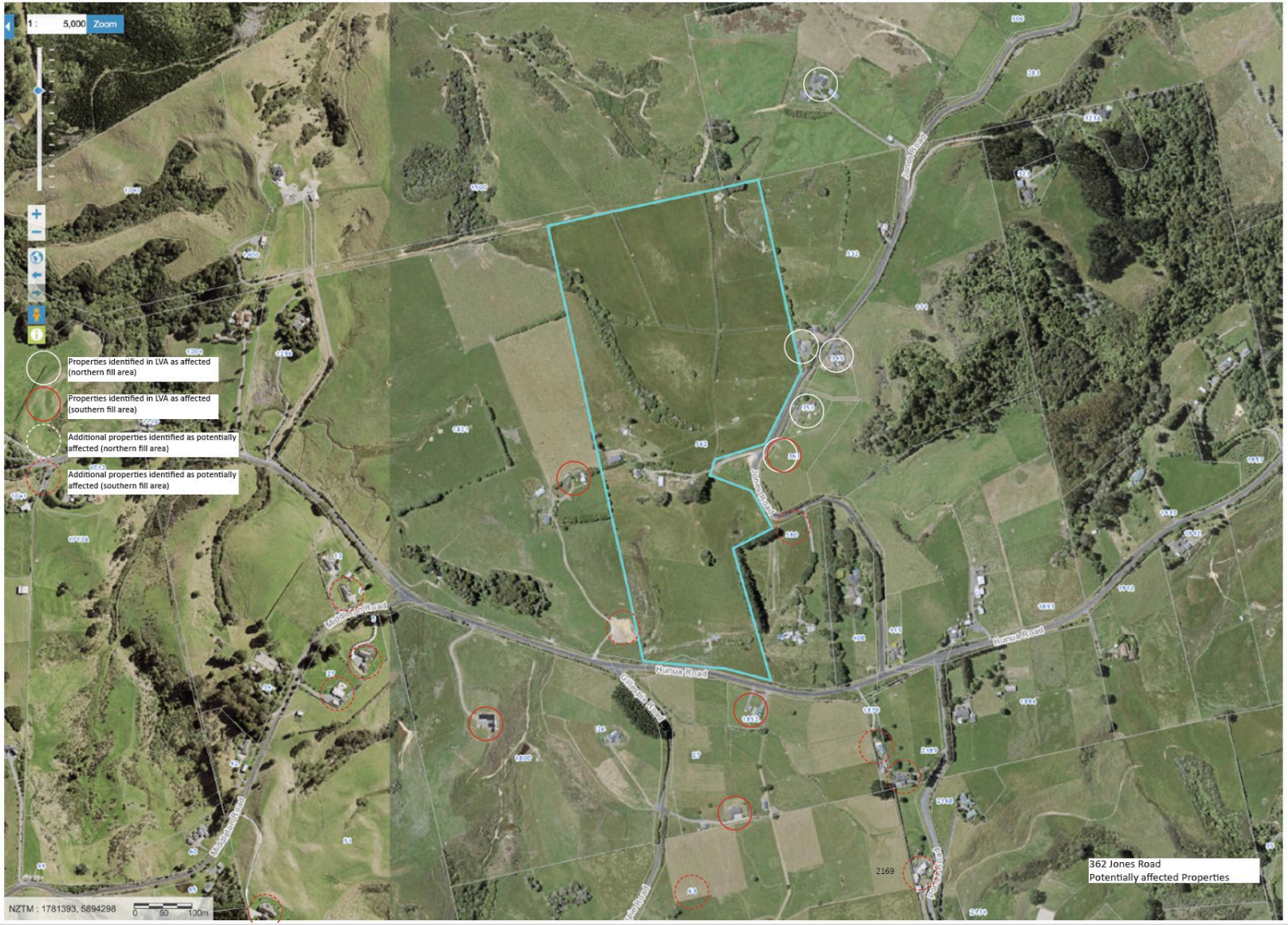
Figure 1: Outlook from southern fill site

Figure 2: Outlook from southern fill site

Figure 3: Outlook from southern fill site

Figure 4: Outlook from southern fill site

Annexure 2: Potentially Affected Properties



SCARBRO ENVIRONMENTAL LTD
362 JONES ROAD, HUNUA

FILL MANAGEMENT PLAN

TABLE OF CONTENTS

FIGURES AND DRAWINGS

Figure 1 – Site Location Plan
Figure 2 – Subject Site Plan
Figure 3 – Southern OLFPs
Figure 4 – Northern OLFPs
Figure 5 – Noise Bund Location Plan

Drawing 33250/003
Drawings 33250/110 – 33250/114
Drawing 33250/130

APPENDICES

A Customer Forms
B Record Sheets
C Maintenance Schedule

SCARBRO ENVIRONMENTAL LTD
362 JONES ROAD, HUNUA

FILL MANAGEMENT PLAN

1.0 INTRODUCTION

1.1 PURPOSE

In response to instructions from Scarbro Environmental (SEL), Fraser Thomas (FTL Ltd) has prepared this Fill Management Plan (FMP) to support a Fill Facility operation at 362 Jones Road, Hunua (Part Allotment 10 and Allotment 264 Parish of Hunua) (approximately 25.2ha; 'subject site').

The Fill Facility comprises two separate areas of 9ha and 2ha (including associated drains and sediment ponds) on the northern and southern sides of the site respectively, with an estimated combined fill volume of 790,000m^3. Filling will take place over a period of 5-10 years and consent has been granted for a total period of 10 years, providing some contingency should fill volumes be less than anticipated.

This FMP has been prepared in accordance with the requirements of the WasteMINZ Technical Guidelines for Disposal to Land (September 2023) and the Auckland Unitary Plan:Operative in Part (AUP:OP) clean fill and managed fill requirements. Its scope is consistent with the medium scale nature of the proposed filling activity on-site.

A copy of this plan will be kept on-site in all site vehicles and made available to all truck drivers bringing fill to the site. A copy will also be kept at the site office.

1.2 SITE LOCATION, IDENTIFICATION AND ZONING

Registered Owner	Lynley Ruth Monk, Lance Richard Patrick, Trevor Bryce Patrick, Wayne John Patrick (Scarbro Environmental Ltd purchasing property)
Street Address	362 Jones Road, Hunua, Auckland
Legal Description	Part Allotment 10 and Allotment 264 Parish of Hunua
Zoning	Rural - Rural Production zone
Area	25.2 ha

The subject site (362 Jones Road, Hunua) is a 25.2ha rural property situated on the western side of Jones Rd and north of Hunua Road, approximately 16km east of the Papakura interchange (SH1/Beach Road) on the Southern Motorway (refer Figure 1 and Figure 2 for site location plan and subject site). The site is zoned "Rural - Rural Production zone" under the AUP:OP.

Figure 1 shows the site location in relation to the Southern Motorway. Figure 2 shows the subject site.

Figure 1: Site Location Plan

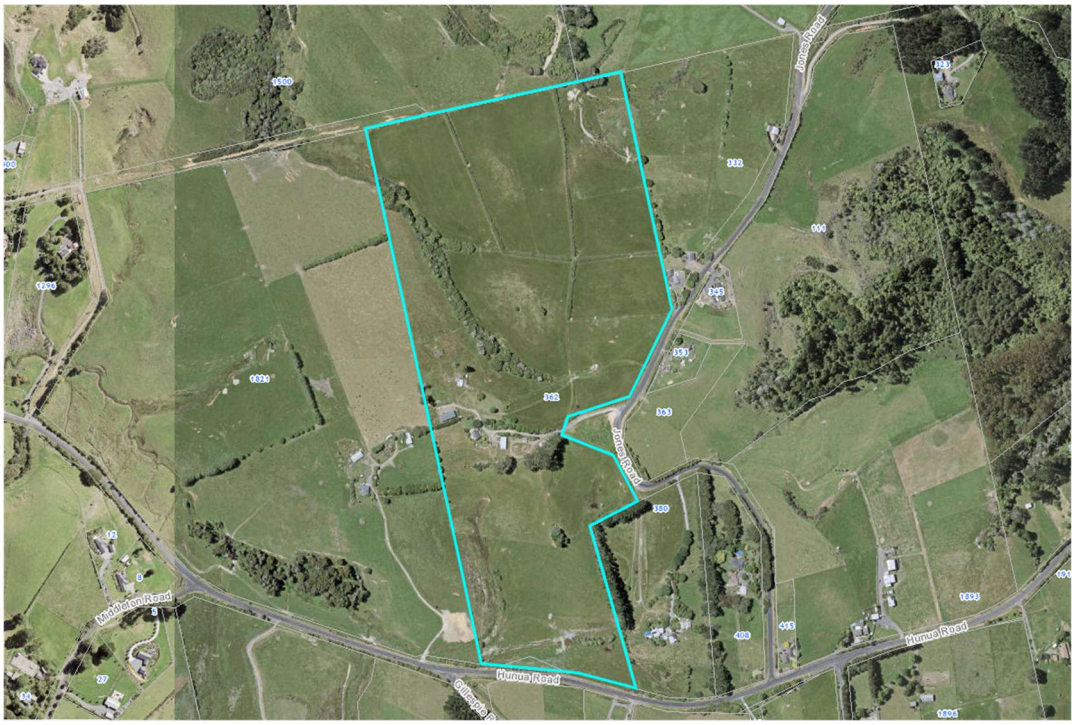


Figure 2: Subject site- 362 Jones Road (Source: Council Geomaps)

1.3 SITE DESCRIPTION

The subject site has been historically used for farming purposes (pastoral grazing) and is largely covered in grass. The centre of the site has been used for residential purposes since at least the 1940s and includes several buildings and animal pens. The site is surrounded by properties in use for a mix of rural, rural-residential, and pastoral purposes. Existing site access is off Jones Rd.

The existing groundwater bore and pump shed located in the northern fill area is to be decommissioned and capped as part of fill development works.

1.4 TOPOGRAPHY, SOILS, GEOLOGY, HYDROLOGY AND HYDROGEOLOGY

1.4.1 Topography

The site has a moderate sloping landscape, including multiple gullies. The northern area is a gently rolling hill grading down to a stream running along the western boundary of the site, and to the north of the site. The highest point of the area is along the eastern boundary. The southern area is a steeper hilly area, which grades from a ridge down to a separate stream along the western boundary of the site.

1.4.2 Soils

The Manaaki Whenua - Landcare Research soils map shows the site to have Albic Ultic (UE) soils.

1.4.3 Geology

The Geological and Nuclear Sciences geological web map (NZ 1:250,000) indicates that the site is underlain by sandstone and siltstone rocks of the Waipapa group, consisting of a massive to thin bedded, lithic volcaniclastic metasandstone and argillite, with tectonically enclosed spilite, chert and red and green argillite.

Fraser Thomas Ltd have undertaken a geotechnical investigation of the subject site involving 23 hand augered boreholes (H1 – H23) across proposed filling areas and associated access roading.

Topsoils were generally encountered between 0.2 – 0.4m depth below ground level (BGL). Topsoil was not encountered in Boreholes H10, H12, H14 and H19.

Fill was encountered beneath the surficial topsoil material in Boreholes H15, H18, H21, H22 and H23 to a depth of approximately 1.5m, 1.0m, 1.5m and 0.6m BGL respectively, and to the extent of Borehole H21. The fill material generally comprised of gravelly silts and clayey silts. Borehole locations H15 & H21 – H23 are located in the southernmost section of the site, and location H18 is located by the southern culvert. Due to the proximity of these locations to Hunua Road, it is suggested that the fill may have been reworked during construction of the cut section of road.

1.4.4 Stormwater Drainage

The Council Geomaps website shows that the site is subject to four overland flowpaths (OLFPs).

The southern side of the site is subject to two overland flowpaths. OLFP1 runs along the main stream along the southern boundary (estimated 19ha catchment area). The contributing catchment of the OLFP is from upstream of the site as well as from the southern side of Hunua Road, as there are culverts under the road that will take runoff under Hunua Road. OLFP2 runs along the western boundary (estimated 5ha catchment area). OLFPs 1 and 2 are shown in Figure 3 below.

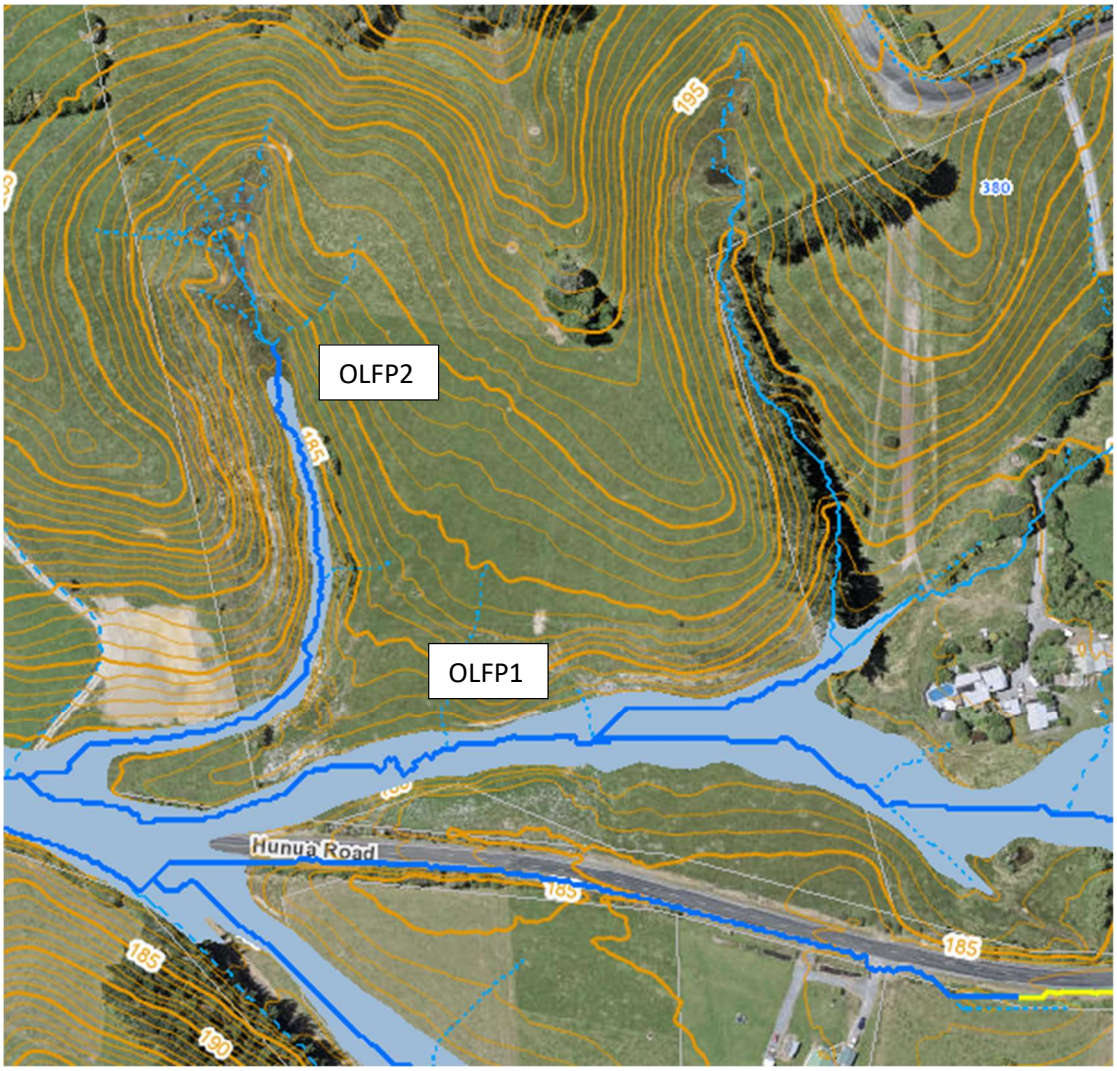


Figure 3: Geomaps OLFP and Floodplain Data for the Southern Area of the Site

The northern side of the site is also subject to two overland flowpaths. OLFP3 runs along the main stream along the north western boundary (estimated 15ha catchment area), and OLFP4 along the northern boundary (estimated 12ha catchment area). OLFPs 3 and 4 are shown in Figure 4 below.

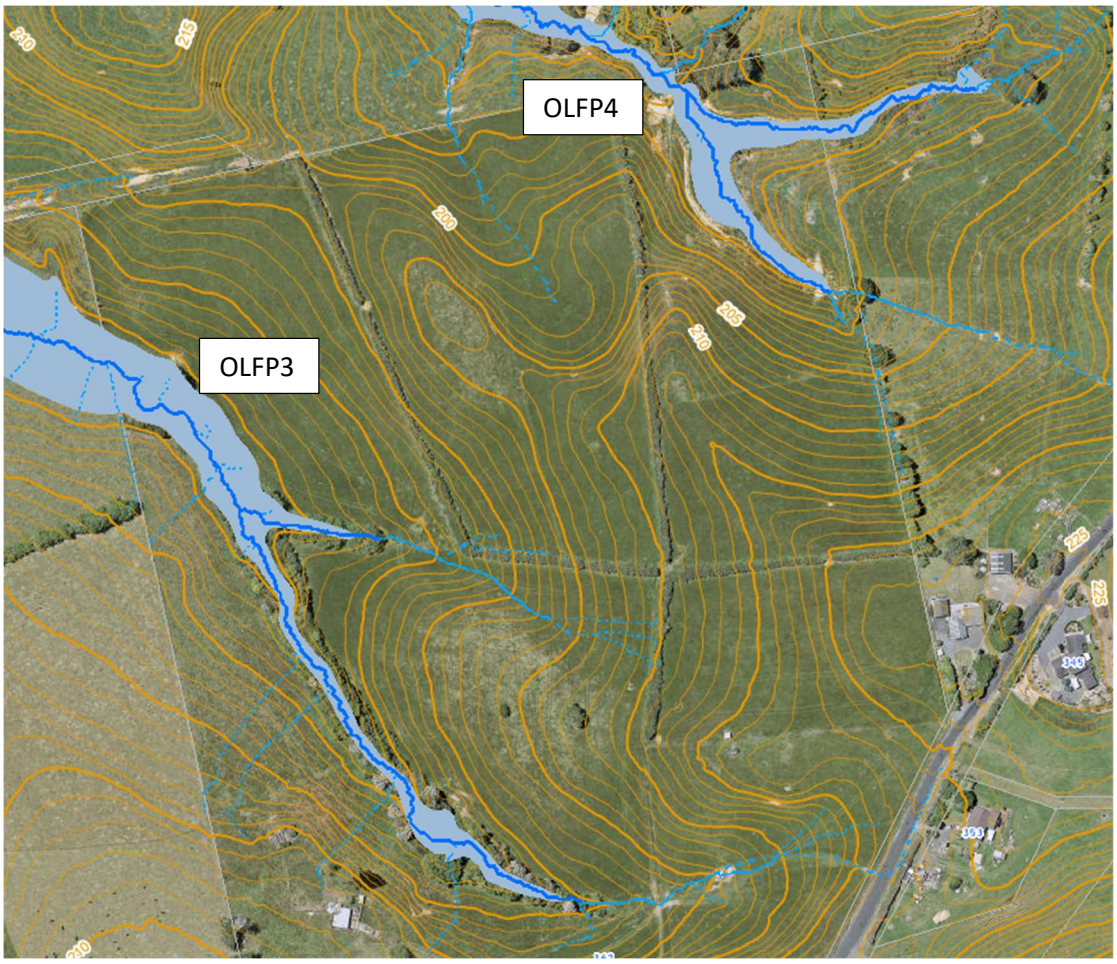


Figure 4: Geomaps OLFP and Floodplain Data for the Northern Area of the Site

These OLFPs will generally be maintained as part of the Fill development.

1.4.5 Groundwater

The site is not located in a High Use Aquifer Management Area.

2.0 MANAGEMENT

2.1 SITE CONTACTS

Registered Owner	Scarbro Environmental Ltd
Operator	Scarbro Environmental Ltd

The site is fully managed by Scarbro Environmental Ltd (SEL).

2.1.1 Project Manager

Project Manager: Liam Scarborough
Mobile: 021 213 5992
Email: Liam@scarbrocivil.co.nz

2.1.2 Site Supervisor

Supervisor: TBC
Mobile:
Email:

2.1.3 Fill Validation Sampling and Testing

Fraser Thomas Limited	Sean Finnigan, Director – Environmental, CEnvP-SC (Suitably Qualified and Experienced Professional (SQEP) - Contaminated Land)
Phone	09 278 7078 / 021 0223 0510
Email	sfinnigan@ftl.co.nz

2.1.4 Noise Testing

Name	Daniel Winter
Phone	09 308 9015; 021 118 8488
Email	daniel@stylesgroup.co.nz

2.2 RESOURCE CONSENTS

This site is subject to the following resource consents, valid for 10 years, from the date on which the first of these consents commence.

Table 1: Overview of Resource Consent Requirements

Activity	Overview	Resource Consent
Earthworks for filling	790,000m^3 of fill earthworks over 11ha area.	E11 – Land Disturbance Regional: Activities A8 & A9 **restricted discretionary activity under** Standard E11.4.1.
		E12 - Land Disturbance District: Activities A6 & A10 **restricted discretionary activity;** Standard E12.4.1.
Filling	Establishment and operation of a fill facility of 790,000m^3 operating over a maximum 10 year period	H19 - Activity A66: **discretionary activity**; Standard H19.4.1
Discharge of contaminants		E13 - Cleanfills, Managed Fills and Landfills: Activity A5: **restricted discretionary activity –** managed fills that do not comply with Standard E13.6.2.2
Abandoning existing bore	Decommissioning existing bore located in northern fill area	E7 – Activity A40 - decommissioning (abandoning) existing bore – **permitted activity** under E7.6.1.20
Bore permit	New groundwater bore and/or pump, to replace existing bore	E7 - Taking, using, damming and diversion of water and drilling: Activity A41 – new bores for purposes not otherwise specified – **controlled activity;** Standard E7.6.2.3

Activity	Overview	Resource Consent
Groundwater take	Use of groundwater from new bore on site for wheel washing and dust control	E7 - Taking, using, damming and diversion of water and drilling: Activity A15 – groundwater take within 20m^3/d and 5,000m^3 per year: **permitted activity**
Existing culvert removal and new bridge over stream near site entrance	Removal of the existing culvert of length <10m, with associated erosion/scour management works of max 5m length	E3: Lakes, rivers, streams and wetlands: Activities A24 and A29: **permitted activity;** Standards E3.6.1.13 and E3.6.1.16. National Environmental Standard – Freshwater (NES-FW) – not applicable

2.3 RIGHT OF ACCESS

Right of access is strictly controlled and limited to SEL and authorised sub-contractors, as well as authorised consultants (e.g. Fraser Thomas Ltd) and Council staff or agents involved in site monitoring in accordance with the consent conditions. No unauthorised vehicles are allowed entry. The gate will be locked outside working hours.

Hence, there are several forms of direct (locked gate) and indirect (informal supervision by Fill Facility staff) deterrents to entry. Consequently, access to the site by unapproved users during normal operating hours and outside these hours is highly unlikely.

2.4 OPERATING HOURS

The operating hours for the site are:

- Monday to Friday: 7:00am to 6:00pm;
- Saturday: 7:00am to 1:00pm
- Sundays and public holidays: Closed

The Fill Facility will not operate outside these hours.

2.5 STAFF

On-site staffing (excluding truck drivers passing through the site) will involve up to 4 people, including a Site Supervisor, machinery/plant operators and general labour. Some staff may undertake more than one of these roles, according to workload demand.

The Site Supervisor is an experienced senior staff member who is in charge on site at all times and present during work hours. This person will control site operations including monitoring incoming and exiting loads, fill acceptability, fill quality, dust, erosion and sediment control, gate control, vehicle movements, record keeping, etc.

2.6 OFFICE AND AMENITIES

The site office is located in the existing dwelling located in the centre of the site.

The site office will utilise the existing dwelling water supply and wastewater disposal system. These comprise a roof rainwater harvesting water supply and on-site wastewater septic tank treatment and disposal system. The existing systems are considered suitable for this purpose without requiring any changes.

A new groundwater bore will be installed east of the residential dwelling on the site to provide a water supply source for dust control and animal drinking troughs. This water supply should be suitable for this purpose.

Staff parking is provided on-site by the staff office. All staff, visitors and contractors will be directed to park on-site and no parking in the road corridor is permitted.

The local power supply reticulation to the site is off Jones Road and extends to the site office and wheel washing area.

Site access is via the new accessway off Hunua Road. This comprises a two-lane gravelled road. Access to the site will be controlled by a secure gate that is opened manually.

Additional internal access roads run to each sub-stage of the Fill Facility, with turning circle areas created for each stage of filling. All internal access roads are 6m wide. Passing bays will be installed where necessary. Specific design details will be provided for accessway works for each stage of filling, as they will be designed and constructed progressively as part of filling operations.

2.7 PLANT AND MACHINERY

Machinery for the fill operation comprises the following:

- One 21T excavator
- One Sheepfoot Compactor (18T)
- One Caterpillar D6 Bulldozer or equivalent.
- One $6m^3$ Water cart

Works will be undertaken using a 21-tonne excavator, a bulldozer (Caterpillar D6 or similar) and an 18-tonne sheepsfoot roller.

The plant and machinery will be operated in the following manner to mitigate potential noise effects on neighbouring properties:

- The number of truck movements associated with the fill facility on Monday – Friday must not exceed 96 trucks per day (192 movements) and 20 trucks (40 movements) in one hour.
- The number of truck movements associated with the fill facility on Saturday must not exceed 50 trucks per day (100 movements) and 20 trucks (40 movements) in one hour.
- Tonal reverse alarms must not be used on any plant or machinery on site. Broadband reverse alarms may be fitted if reverse alarms are required.

- An earth bund shall be constructed 25m off the eastern property boundary to provide acoustic screening to 332 Jones Road and 353 Jones Road to the east of the site. The bund shall be at least 160m long and 3m high (refer Figure 5 for approximate location).
- Bulldozers and vibratory compaction rollers must not be operated within 90m of the property boundary of 332 Jones Road or within 80m of the property boundary of 353 Jones Road during the operation of the fill facility. These restrictions do not apply when the plant is being used for construction works.

2.8 TRAINING

Management and staff have the required knowledge to run and operate the proposed fill site. New staff will be trained in accordance with this FMP, including in filling operations and waste acceptance protocols. Form 5 in Appendix B has been prepared as a simple checklist for on-site staff to check that contamination reports have been completed and provided where appropriate.

2.9 HEALTH AND SAFETY

The site is run under SEL's Standard Health and Safety Policy, which is available on request through SEL.

Each truck entering the site and all plant/machinery will carry first aid equipment in the case of an accident. The drivers and operators of these vehicles also carry mobile phones for contacting emergency services, if needed, while additional telephone access is also available in the near vicinity at neighbouring houses.

2.10 ACCIDENTAL DISCOVERY PROTOCOLS

2.10.1 At-Source Contamination Protocol

The following applies to unexpected contamination discoveries at source sites for fill to be taken to the Jones Rd facility.

If unexpected potential or actual contaminated material, including fill or organics at depth, refuse (paper, plastic, metal, glass, etc.), visually stained or odorous soil, asbestos containing material (ACM), or other hazardous materials that appear to be contaminated is identified at individual fill source sites during excavation works, then work should cease within a 5m radius of that area and a SQEP (customer or SEL) will then visit the site to determine the nature and extent of the potentially contaminated soil. This is likely to involve the collection of soil samples and laboratory analysis, followed by disposal off-site to an appropriate disposal facility, other than the SEL Fill Facility.

2.10.2 Fill Facility Protocol

Should any unexpected contamination, archaeological material, artefacts or remains, actual or potential koiwi, a protected NZ object or a lava cave greater than 1m in diameter become exposed

during Fill facility construction (i.e. topsoil stripping and any undercutting of unsuitable materials), the contractor is required to cease works immediately in the vicinity of the discovery (leaving at least a 20m buffer), secure the area and to notify Council, Heritage New Zealand Pouhere Taonga, Police (if human remains are found) and the kaitiaki and kaumatua of the relevant mana whenua (if koiwi, archaeology or artefacts of Māori origin are found).

Works in the vicinity of the find must not recommence until the steps set out above and in condition 50 of the resource consent have been followed and Council has advised that the works can recommence.

2.10.3 Iwi Contacts

Lucie Rutherford
RMA Technical Officer
Ngāti Tamaoho Trust
Ph: 09 930 7823 Mob: 0211708543
rmaofficer@tamaoho.maori.nz
128 Hingaia Road, Karaka,
PO Box 2721652, Papakura
Auckland 2244

2.10.4 Heritage New Zealand Contacts

Bev Parslow
Auckland Regional Archaeologist
Heritage New Zealand (Pouhere Taonga)
Premier Building, 2 Durham Lane East
Private Box 105 291, Auckland 1143
Ph (09) 307 9920; DDI: (09) 307 9923; Mobile 0272 921445
ArchaeologistMN@heritage.org.nz

2.11 NOTIFICATION

2.11.1 Pre-Start Meetings

Pre-start meetings will be held on site no less than 5 days before:

i) Commencing road works, and
ii) Commencing earthworks.

These meetings will include the relevant Auckland Council and/or Auckland Transport officers and all necessary documentation.

2.11.2 Notification of Neighbours

A letter drop to properties within 250m of the site will be undertaken at least 10 days prior to:

i) Commencing any works on site, and
ii) Commencing filling on site.

This letter drop will inform neighbours about the commencement of the works and will contain the contact details of the Site Supervisor outlined in Section 2.1.2 above.

2.12 FINISHED CONTOUR AND LANDSCAPE PLAN

Within six months of the commencement of the filling operation, SEL shall submit to the Council for certification, a finished contour and landscape concept plan (LCP) showing the finished contours and landscape treatment for the completed Fill Facility. The LCP shall be prepared by a civil engineer in conjunction with a landscape architect or suitably qualified professional. The LCP will address conditions XX-XX of the resource consent.

2.13 RIPARIAN PLANTING AND FENCING PLAN

Riparian planting and fencing is to be undertaken in accordance with the separate associated plan prepared by Boffa Miskell Ltd and associated consent conditions XX-XX.

3.0 DESIGN AND OPERATION

3.1 OVERVIEW

The Fill Facility comprises two separate areas in the northern and southern portions of the site, as shown on drawing 33250/003.

The northern fill area comprises a mounded landform over an area of 9ha and of approximate volume 720,000m^3. The northern fill area has an average 8m depth of fill and a maximum fill depth of 24m.

The existing water bore within the northern fill area will be decommissioned and removed prior to the commencement of filling in this area.

The southern area comprises a mounded landform over an area of 2ha and of volume 70,000m^3. The Southern Fill Area has an average 3.5m depth of fill and a maximum fill depth of 10m.

Filling is dependent on market conditions. These conditions fluctuate and so does the supply of suitable material. When there is a suitable and ready supply, the hours of operation and limits on truck movements then serve to regulate the rate of filling.

Erosion and sediment control will be provided by three sediment ponds (two for the northern fill area and one for the southern fill area), each sized to cater for their respective catchment areas, with treated runoff discharged to the watercourses through the site from these ponds.

The extent of the Fill Facility area, proposed fill depths, proposed final contours and selective cross-sections are shown on drawings 33250/110-114.

The remainder of the site that is not in use for filling operations, or where filling has been completed, will remain in pasture and be grazed, if conditions allow.

3.2 FILL FACILITY STAGING

The Fill Facility will be staged so that a maximum 2ha area is being filled at any one time. Preliminary staging plans are shown on drawing 33250/130. The staging is indicative only, as the filling will be an iterative process, with filling areas changing as required to build the final platforms. The staging plan may also need to be changed as site constraints and operational constraints are realised during either detailed design or once SEL has established on site.

3.3 SIGNAGE

Appropriate signage will be put up at the site entrance prior to the commencement of filling. As a minimum, this will include the name and contact details of the Fill Facility operator.

3.4 FENCING

The site is already fully fenced along all boundaries. Additional internal fencing will be installed as required to facilitate filling operations and prevent grazing animals entering any active filling areas.

3.5 SCREENING BUNDS

An earth bund shall be constructed to provide acoustic screening to 332 Jones Road and 353 Jones Road to the east of the site. The bund shall be at least 160m long, 3m high and constructed 20-25m in from the eastern site boundary. Figure 5 illustrates the approximate location of the proposed earth bund.

Figure 5: Noise bund location plan

The screening bunds are not required when the excavator is being used at distance of:

- 45m of the site boundary with 332 Jones Road
- 40m of the site boundary with 353 Jones Road

This is in addition to the Styles Group Noise Effects report recommended condition (6) in the report:

- Bulldozers and vibratory compaction rollers must not be operated within 90m of the property boundary of 332 Jones Road or within 80m of the property boundary of 353 Jones Road during the operation of the Fill facility. These restrictions do not apply when the plant is being used for construction works.

3.6 TRAFFIC MANAGEMENT

Truck numbers on Monday to Friday inclusive will not exceed:

- 96 loaded trucks and 192 total truck movements per day.
- 19 loaded trucks and 38 total truck movements per hour.

On Saturday, the number of truck movements associated with the Fill Facility will not exceed 50 trucks per day (100 movements) and 20 trucks (40 movements) in one hour.

Trucks will comprise both rigid trucks and truck and trailer units. A speed limit of 20km/h will be imposed within the fill site.

A vehicle register (Form 2 in Appendix B) will be kept by the Fill Operator, as detailed in section 3.9 of this FMP. This will be made available to Council on request of the Team Leader – Southern Monitoring, Auckland Council.

A separate Traffic Management Plan has been prepared as required by resource consent.

3.7 BORE WATER SUPPLY

Groundwater from a new bore located on the site shall be used to provide water for the filling operation, primarily for vehicle wheel washing use and dust control. Bore water abstraction shall comply with the AUP E7 permitted activity requirements, comprising the following:

- Total daily abstraction not to exceed 20m^3.
- Maximum annual abstraction not to exceed 5,000m^3, based on the period from 1 June of any year to 31 May of the following year.

4 x 30m^3 above ground water storage tanks will be used to store groundwater and maintained full, subject to compliance with the maximum daily abstraction rate. If site experience indicates additional bore water is required for wheel wash use and dust control, then a resource consent for a water take in excess of the permitted activity requirements will be applied for at that time.

As groundwater usage is anticipated to be relatively low, groundwater abstraction volumes will be measured using a simple method, involving a "run hours" meter, with pump flows being measured prior to commencing water abstraction and at 5 yearly intervals, so as to enable run hours to be converted to flows. Calibration verification records shall be provided to Council within 20 working days of measurement.

Water meter readings shall be recorded weekly at the same time each week, even if no water is being taken during any period. The meter shall be read either before pumping starts or at the end of pumping for a day. Water use, water meter reading and date shall be entered into Council's Water Use Data Management System (or any replacement database advised to SEL by Council in writing) every 15th day of March, June, September and December. The web address for this system is:

http://aklc.hydrotel.co.nz/hydrotel/cgi-bin/WudmsWebServer.cgi

Access requires uses of the following database access information:
SEL customer number: TO ADD
SEL password: TO ADD

An on-line manual explaining how to enter and submit water readings to Council is available at the web address specified above.

The bore pump will be serviced regularly in accordance with supplier recommendations.

3.8 FILL IMPLEMENTATION

3.8.1 Proposed Sequencing

The expected sequence of filling and associated activities is summarised below. These works will be constructed on a stage-by-stage basis, apart from the sediment controls which will cover the entire northern and southern fill areas:

- Install all silt/sediment control structures required for the total filling area, including sediment retention ponds, diversion drains/bunds, as appropriate. Obtain approval from the relevant Authorities prior to commencing works.
- Install temporary access roads and turning areas.
- Remove vegetation as required.
- Strip topsoil and unsuitable materials and stockpile (separately) on designated stockpile areas/bunds.
- Install underfill strip drains and connect into perimeter swale.
- Undertake filling and compaction.
- Re-spread topsoil across filled areas.
- Mulch, hydroseed or grass all batters and exposed surfaces, as appropriate. Mulching or hydroseeding will be done on intermediate exposed surfaces, while grassing will be done on completed filling areas. This will be done progressively as different areas are completed.
- Decommission erosion and sediment control devices once exposed surfaces are fully stabilised.

Further details on specific items from the above list are given in the following sections as required.

3.8.2 Erosion and Sediment Control

Erosion and sediment control measures will be installed prior to any vegetation clearance and earthworks activities on the site. The proposed erosion and sediment control measures cater for the entire fill area (2.0ha for each of the northern sediment ponds and 1.2ha for the southern fill area including sediment pond and drains) and hence provide a high degree of flexibility for development of the Fill Facility.

3.8.3 Access Roading

A new site entrance and access road will be constructed off Hunua Rd. This will include the construction of a new bridge near the new site entrance.

Temporary stabilised access roading, tip heads and vehicle turning circle areas will then be constructed for each stage of filling. These roads will be progressively extended and/or relocated for each stage of filling, as required.

3.8.4 Vegetation Clearance, Tree Removal and Trimming

Vegetation clearance will be undertaken in stages, in accordance with the progression of filling. It will comprise the removal of existing grass/weeds, as the first step of preparing a new area for filling.

An existing Rimu tree within the northern fill footprint will be removed prior to filling in this area. In addition, various hedges in the northern fill area will be removed prior to filling in this area.

In the southern central portion of the site, a ~400m^2 area of native vegetation has been identified. This native vegetation must be retained if possible, due to the size and age of the native trees (12m tall, >50 years old). Furthermore, it has been identified as a bird nesting area.

3.8.5 Existing Rubbish/Fill Relocation and/or Removal

A Preliminary Site Investigation (PSI) found the there are no contamination issues that need to be managed during fill development.

However, if material, including fill or organics at depth, refuse (paper, plastic, metal, glass, etc.), visually stained or odorous soil, fibrous asbestos/asbestos fines or asbestos containing material (ACM), or other hazardous materials that appear to be contaminated is identified during fill development, the procedures set out in Section 2.10.1 of this FMP will be followed.

3.8.6 Topsoil and Unsuitables Stripping and Stockpiling

Topsoil and any unsuitables will be stripped from each stage and temporarily stockpiled within part of the Fill Area, not currently being used for filling or where filling has been completed.

All temporary topsoil stockpiles remaining in place for more than one month will either be mulched, hydroseeded or grassed.

3.8.7 Underfill Drainage

In accordance with the recommendations of the FTL geotechnical report, underfill (strip) drains will be constructed prior to the placement of fill to prevent groundwater from reaching elevated levels within the fill material during extreme transient events. These subsoil drains shall comprise 900mm wide by 300mm deep rectangular strip drains, with TNZ F/2 drainage aggregate fully wrapped in Bidim A29 geotextile or similar. The locations of the proposed underfill strip drains are shown on the appended Fraser Thomas Ltd drawings 33250/350 and 33250/351. Underfill drains may also be installed in other locations, if required, following stripping of topsoil.

3.8.8 Fill Placement and Compaction

Fill operations will be undertaken in small stages within the Fill Facility footprint. Filling should be undertaken in accordance with the recommendations of the geotechnical report. New fill areas will be opened only as required. Filling will then commence with fill material brought to the site in trucks, deposited in the relevant area and re-positioned as necessary by excavator and/or bulldozer.

The fill will be shaped to direct runoff to dirty water diversion drains and fill material track rolled by site machinery for compaction to similar levels to the existing situation, in accordance with the fill

specification in the geotechnical report. Drying or wetting of imported fill material should be undertaken, as required to achieve this. This level of compaction is appropriate, as the fill area will revert to productive pastoral farming on the completion of filling.

The outer faces of the fill will be at a maximum 1V:3H (33.3%). 4m wide benches will be installed at intervals of 10m vertical fill height for fill stability purposes. Any filling proposed on existing slopes greater than 11° (1V:5H) should be placed and compacted on benches cut into the slopes at the site.

Table 2: Fill Placement and Compaction Requirements

Air Voids	Undrained Shear Strength (kPa)
Average ≤ 12% Maximum ≤ 14%	Average ≥ 80kPa Minimum ≥ 50kPa

Actual fill locations will vary depending on considerations such as the type of material received, the season and the filling situation for the overall site. Some areas may be opened and closed several times during the life of the operation, and temporary and permanent stabilisation measures will therefore both be used.

3.8.9 Final Landform and Site Restoration

The finished Northern Fill Area profile will have a top height of 58mRL and gently sloping (i.e. natural rolling pasture) with a predominantly south-easterly aspect towards the central gully.

The finished Southern Fill Area profile will have a top height of 44mRL and gently sloping with a predominantly northerly aspect towards the central and southern watercourses.

Final completion works will involve shaping the surface to ensure a natural, non-engineered appearance and for it to merge naturally with the surrounding land. The sediment ponds and associated perimeter drainage will be decommissioned on completion of filling and site stabilisation, with site flow to be generally dispersed as sheet flow in accordance with existing overland flow patterns.

Final cover will comprise a minimum 200mm thickness of topsoil, sourced from the temporary topsoil stockpiles on-site. If necessary, additional topsoil will be imported to achieve the desired coverage. All topsoil used for the final contouring of the site will be certified cleanfill in line with the AUP:OP guidelines.

Completed areas will be progressively stabilised with a protective surface cover (i.e. grass) to stabilise them against soil erosion and return the area to productive pastoral farming.

The final contouring of each stage of the filling operation will be undertaken in accordance with the certified Landscape Concept Plan (refer section 2.12 of this FMP).

3.9 DOCUMENTATION, RECORD KEEPING AND MONITORING

This Fill Facility represents a small-medium scale site, in terms of capacity and expected vehicle movements, compared with other similar fill sites in the Auckland region. It is also a private filling operation. Hence, it is proposed to have an electronic log book in the site office for drivers to fill out on entry. There will not be a weighbridge. Instead incoming trucks will be full upon arrival, and estimated volumes will be made based on vehicle capacity.

The record accuracy is the responsibility of the site supervisor (one of the 4 staff on-site). The Supervisor will keep the following records:

- **Vehicle register** (Form 2 in Appendix B), containing a daily record of all incoming vehicles, noting contractor / driver name, order number, the date and time, vehicle registration, vehicle type / size, source (site address), type(s) of fill material and approximate volume, name and signature confirming the details, and any other comments.
- An annual drone and topo survey of the area and volume filled each calendar year. The results of a topographic survey of the volume of material will be provided to the Team Leader – Southern Monitoring, Auckland Council.
- A **dust assessment log** (Form 3 in Appendix B) recording the time, location and results of daily visual assessments of dust.
- A **complaints register** (Form 4 in Appendix B) for any complaints received, including the action taken to resolve the complaint. This will include any noise and air quality complaints, including the following information
  - record the date, time, location and nature of the complaint;
  - name, phone number and address of the complainant (unless the complainant refuses to supply these details);
  - weather conditions at the time of the incident including approximate wind speed and direction;
  - the approximate number of truck movements along the internal road at the time of the incident; and
  - any remedial actions taken.

  Details of any complaints received shall be provided to the Team Leader – Southern Monitoring, Auckland Council within one working day of receipt of the complaint(s)
- **Fill declaration, waste acceptance and monitoring records** – Form 1 in Appendix A and Form 5 in Appendix B.
- **Pond Flocculant dosing records – chemical and/or organic**
- **Other verification, compliance and monitoring records** as set out in Section 4 of this FMP.

Corresponding record sheets are included in Appendix B. These records will be provided to Council as part of annual reporting (see section 5) or on request. They will also be available for inspection at the site office on request, or electronic or scanned copies can be provided to Council on request.

3.10 GEOTECHNICAL COMPLETION REPORT

A suitably qualified geotechnical engineering professional is to provide certification for each stage of works that they have been completed in accordance with this FMP, the recommendations in the FTL Geotechnical Investigation Report, and the resource consent conditions (specifically conditions XX-XX). This certification, in the form of a Geotechnical Completion Report, is to be provided to the Team Leader – Southern Monitoring, Auckland Council, following completion of the filling operation within each Stage of the Fill Facility.

3.11 NOISE MONITORING

Noise monitoring will be undertaken on three separate occasions during the first year of filling operations. Monitoring shall comprise a minimum of three 15-minute samples and be carried out in accordance with the provisions of NZS 6801:2008 "Acoustics – Measurement of Environmental Sound" and NZS 6802:2008 "Acoustics – Environmental Noise". Monitoring reports shall be submitted to the Team Leader – Southern Monitoring, Auckland Council within 10 working days of the monitoring being undertaken. The monitoring and reporting shall address the requirements set out in condition XX of the resource consent.

4.0 FILL CLASSIFICATION

It is proposed that the Fill Facility will accept "cleanfill", based on background concentrations for heavy metals in volcanic soils in the Auckland region, as well as some common organic contaminants. This means it will be a Cleanfill under the WasteMINZ Disposal to Land Guidelines, but a Managed Fill under the AUP:OP guidelines. The rationale for this is explained in this section.

4.1 WASTEMINZ TECHNICAL GUIDELINES FOR DISPOSAL TO LAND

The WasteMINZ Technical Guidelines for Disposal to Land were originally released in 2016 and updated in August 2018 and again in September 2023. They classify landfills in New Zealand into five categories. Based on this classification system, the proposed fill facility would be classified as a Class 5 Landfill, namely a **Cleanfill**.

A **Class 5 Landfill (Cleanfill)** accepts only cleanfill material as defined in the WasteMINZ Guidelines. The principal control on contaminant discharges is the waste acceptance criteria. Cleanfill material is defined as "virgin excavated natural materials" (VENM) such as clay, soil and rock that are free of:

- Combustible, putrescible, degradable or leachable components;
- Hazardous substances or materials (such as municipal solid waste) likely to create leachate by means of biological breakdown;
- Products or materials derived from hazardous waste treatment, stabilisation or disposal practices;
- Materials such as medical and veterinary waste, asbestos, or radioactive substances that may present a risk to human health if excavated;

- Contaminated soil and other contaminated materials, and
- Liquid waste.

It can also accept:

- Maximum incidental inert manufactured materials (e.g. concrete, brick, tiles) of no more than 5% by volume per load; and
- Maximum incidental or attached biodegradable materials (e.g. vegetation) of no more than 2% by volume per load; and
- Maximum contaminant concentrations consistent with local/regional background soil concentrations; and.
- Some common organic contaminants at low levels.

4.2 AUP: OP

However, under the AUP: OP, the proposed facility would not be classified as a **Cleanfill**. The AUP: OP defines a **Cleanfill** as a facility where cleanfill material is accepted for deposit.

Cleanfill Material is defined in the AUP: OP as natural material such as clay, gravel, sand, soil and rock which has been excavated or quarried from areas that are not contaminated with manufactured chemicals or chemical residues as a result of industrial, commercial, mining or agricultural activities. It excludes:

- hazardous substances and material (such as municipal solid waste) likely to create leachate by means of biological breakdown;
- product and materials derived from hazardous waste treatment, stabilisation and disposal practices;
- materials such as medical and veterinary waste, asbestos, and radioactive substances;
- soil and fill material which contain any trace element specified in Table E30.6.1.4.2 at a concentration greater than the background concentration in Auckland soils specified;
- sulfidic ores and soils;
- combustible components;
- more than 5% by volume of inert manufactured materials (e.g. concrete, brick, tiles); and
- more than 2% by volume of attached biodegradable material (e.g. vegetation).

It would instead by classified as a Managed Fill. This is defined in the AUP: OP as:

> *"Facility where managed fill material is accepted for deposit."*

Where Managed Fill Materials are defined as:

> *"• contaminated soil and other contaminated materials;*
> *• natural materials such as clay, gravel, sand, soil, rock; or*
> *• inert manufactured materials such as concrete and brick: and*

That does not contain:

> *• hazardous substances or materials (such as municipal solid waste) likely to create leachate by means of biological breakdown;*

- *products or materials derived from hazardous waste treatment stabilisation or disposal practices;*
- *materials such as medical and veterinary waste, asbestos, or radioactive substances;*
- *combustible components; or*
- *more than 2 per cent by volume of incidental or attached biodegradable materials (e.g. vegetation)."*

4.3 PROPOSED FILL ACCEPTANCE APPROACH

The fill material will come from excess spoil from civil works undertaken by the Scarborough Group. This fill material will be subject to a rigorous pre-acceptance process for compliance with the appropriate Fill Facility thresholds, as described later in this report.

The proposed facility is referred to in this report as a Fill Facility for consistency with other reports, from a consenting perspective, given this facility is located in Auckland and subject to the resource consenting requirements of the AUP: OP, it is also a Managed Fill Facility.

However, it is also classified under the WasteMINZ Disposal to Land Guidelines as a Class 5 cleanfill and hence is not subject to the Ministry for the Environment Waste disposal levy that apply to Class 1-4 landfills, including Fill Facilities such as managed fills.

The facility is located in an area with non-volcanic soils, but fill material will come from various parts of Auckland and hence may include volcanic soils, which may contain higher background levels of heavy metals. Hence, it is considered a pragmatic decision to allow for the Fill facility to accept fill with heavy metals within the higher volcanic background range, as this is unlikely to result in any adverse human health or environmental effects.

The WasteMINZ Land Disposal Guidelines contain further guidance on waste acceptance criteria for cleanfills (Class 5 landfills). These guidelines acknowledge that the presence of synthetic organic compounds, which are not naturally occurring and resulting from man-made sources, are common in natural soils. These synthetic organic compounds can be present at detectable concentrations that do not represent a risk to the receiving environment or influence the potential future land use. It advises that waste acceptance criteria should therefore provide for the presence of these compounds up to concentrations where there is negligible potential for significant adverse effects as a result of direct contact with the waste or fill material or groundwater in contact with the waste or fill material.

Asbestos is another contaminant that is common in the urban environment. From experience at other fill facility operations and as discussed at the pre-application meeting, Fill Facilities occasionally struggle with meeting the no trace asbestos allowed threshold (i.e. no detects from a presence/absence test). Measures may need to be put in place if this is an issue. These include:

- Not accepting any fill material containing asbestos, based on at source testing;
- If any potentially asbestos containing materials are observed when incoming loads are deposited onto an impervious surface (i.e. tarpaulin) at the tipping face, these loads will be excavated, confined and the either accepted or rejected based on laboratory testing.

Furthermore, relevant material from the WasteMINZ Disposal to Land Guidelines relating to Class 5 landfills has been incorporated into the Fill facility design and operation in this application, where appropriate.

5.0 WASTE ACCEPTANCE

These above criteria have been used to help form the proposed Waste Acceptance Criteria (WAC) as listed in Table 3 below.

Table 3: Fill Acceptance Criteria

Parameter	Maximum Acceptable Concentration – Jones Rd Fill Facility (mg/kg)
Heavy Metals	
Arsenic (As)	12
Boron (B)	260
Cadmium (Cd)	0.65
Chromium (Cr)	125
Copper (Cu)	90
Lead (Pb)	65
Mercury (Hg)	0.45
Nickel (Ni)	320
Zinc (Zn)	1,160
Organic Contaminants	
TPH C_7-C_9	120
TPH C_{10}-C_{14}	58
Benzene	0.0054
Ethylbenzene	1.1
Toluene	1.0
Total xylene	0.61
Benzo(a)pyrene (equivalent)	2 (interim)
Total DDT	0.7
Asbestos	No detect (P/A or SQ test) at source; No detect (P/A) in Pond Sediment

Notes:

1. Background levels from "Background Concentrations of Inorganic Elements in Soils from the Auckland Region", Appendix 2 – volcanic range, upper limit. Auckland Regional Council 2001.
2. Acceptance limits for organic contaminants from WasteMINZ Land Disposal Guidelines for Class 5 Landfills (Cleanfills) October 2022, Rev 3 – Appendix H.
3. Asbestos containing fill is prohibited, as noted above.
4. BTEX species comprise benzene, toluene, ethylbenzene and total xylene.

5.1 PROHIBITED WASTES

No materials outside of this definition will be accepted at this site. This includes demolition materials (other than the 5% inert manufactured material allowance listed above), materials from HAIL (Hazardous Activities and Industries List) sites without sampling laboratory results that indicate that soil contaminant levels are within the fill acceptance criteria, organic matter (other than the attached biodegradable 2% volume threshold allowance and the organic contaminants upper concentration limits listed above) and any fill material containing asbestos (based on presence/absence testing for asbestos) including fibrous asbestos, asbestos fines and asbestos containing materials (based on at source testing).

5.2 WASTE ACCEPTANCE PROCEDURES

The Fill Facility waste acceptance procedures are generally based on the WasteMINZ Land Disposal Guidelines for Class 5 Landfills (Cleanfills), amended to include pond sediment sampling due to allowing the acceptance of specified low-level organic compounds at the Fill Facility (see Table 3).

5.2.1 Waste Disposal Application

The Jones Road Fill Facility is a private facility and will only be used by SEL Ltd vehicles or approved contractor vehicles.

A waste disposal application will be completed for each site from which fill material is to be collected, or where there is a change in the nature of the fill being disposed of from a particular site. The application should identify the following:

- Source(s) of the fill material – disposer name (customer), address and contact details, and land use (residential, commercial, etc.);
- Nature and mass/volume of fill material;
- Confirmation that the source of the waste has not been contaminated by current or historical land use activities (i.e. Ministry for the Environment's Hazardous Activities and Industries List (HAIL).
- Copies of any soils testing results completed for the source of the waste.
- Copies of any resource consents authorising the earthworks/land disturbance held for the source of waste.
- Confirmation that the soil meets the Fill Facility waste acceptance criteria.

These waste acceptance forms and supporting information will be reviewed using the following classification system in Table 4.

Table 4: Fill Waste Classification Acceptance System

Fill Volume	From HAIL site	From site with horticultural land use history	From Auckland Central Business District (CBD)	Minimum Acceptance Documentation

<200m^3	No	No	No	Fill Declaration confirming non-HAIL history
>200m^3	No	No	No	Fill Declaration and letter/report signed by SQEP
Any	Yes	Yes	Yes	Fill Declaration and Detailed Site Investigation (DSI) Report

Note: For "Any" category, only one of three items listed needs to apply for DSI to be required – i.e. HAIL or ex-horticultural or Auckland CBD.

The onus will be on the customer to provide sufficient information, including testing results, where necessary, in accordance with the classification system in Table 4, that complies with Ministry for the Environment Contaminated Land Management Guidelines and has been reviewed and approved by a SQEP in Contaminated Land in accordance with the NESCS.

All HAIL related reports will not be accepted unless signed off by a SQEP employed by the customer.

The waste disposal application is referred to as a Fill Declaration (refer Appendix B, Form 1). It must be signed by the customer to confirm the material is acceptable fill and accepting liability for any costs incurred in removing/remediating contaminated soil should the material not meet waste acceptance criteria when testing is undertaken.

5.2.2 Waste Application Review and Acceptance

The application form and supporting information will be submitted to the Jones Road Fill Facility. The information will be reviewed by a SQEP engaged by SEL to determine whether the waste material complies with SEL site's WAC. Where insufficient information is provided, the waste characterisation is considered inadequate, or there are other issues, these will be discussed with the customer, with it being their responsibility to arrange for relevant additional testing to be undertaken.

The parameters tested for will be relevant to the source site's history and likely HAIL activities it has been exposed to.

Applications for any larger batches of fill material (i.e. >200m^3) require pre-approval and will be scrutinised more closely (using Table 4 classification system), including SQEP review and assessment provided by the party supplying the fill, in order to ensure it meets the Fill Facility WAC. Where necessary, SEL's SQEP may undertake additional desktop study, site inspection and/or soil sampling using an XRF and/or lab testing (depending on the contaminants of concern) to confirm the waste materials are suitable for disposal at the fill facility. The associated costs would then be passed on to the customer.
Once the waste application information has been reviewed, approved and signed off by the SEL SQEP, the waste materials will be accepted for transport to the Fill Facility site. Fill material not meeting the WAC will be rejected.

Acceptance of a waste disposal application provides the basis of a waste acceptance agreement. The agreement should also contain details of sanctions available to the operator should the customer

breach the terms of the agreement. It should also set out the rights of the SEL Fill operator to inspect, challenge, sample, test and, if necessary, reject any waste brought to the Fill site for disposal.

All HAIL reports and signoff from the SEL SQEP will be retained by the consent holder (see Form 5 in Appendix B).

5.2.3 Waste Reception and Disposal at Fill Site

On arrival at the Fill site, office staff will:

- Review the waste application form and waste acceptance agreement (saved to SEL file server Jones Rd Fill Facility database).
- Undertake random visual load checks at a frequency of 1 in 25 loads to confirm waste acceptance. This frequency may be adjusted based on the type and quantity of material being received and findings from previous inspections.
- Undertake random soil sample collection at a frequency of 1 sample per 500m^3. These samples will be collected from incoming trucks by the site office. Samples will be collected from 3 locations without each random truck load, then composited into 1 sample for laboratory analysis. Samples will be analysed for the analytes as listed on the site WAC as well as presence/absence asbestos in soil.
- All truck loads that are subject to the random sample collection will deposit their load on an impervious surface (i.e. tarpaulin) at the tipping head, where the material will be confined by barrier fencing until results have been received and WAC compliance can be confirmed.
- Any material that is identified as non-compliant will be handled in accordance with the procedures outlined in section 5.2.5 below.
- Record the volume of fill entering the site by keeping a record of the trucks entering the site (truck number plate and the corresponding known truck volumes). Refer Vehicle Register (Form 2 in Appendix B).

Supervision of the disposal facility will be undertaken at the working face and be maintained at all times when wastes are received at the Fill Facility to identify any inappropriate loads, or portions of loads, before they are covered and incorporated into the fill mass.

Any fill material which fails any visual and olfactory checks undertaken in accordance with this FMP upon arrival at the site, shall be rejected immediately.

5.2.4 Filled Area Verification Sampling

Verification sampling should be undertaken from deposited waste across the active Fill Area based on number of truck loads. For every 250 truck & trailer units, the SEL SQEP should collect a single sample for analysis at an IANZ accredited laboratory. This equates to approximately one sample per 4,500m^3 over the lifetime of the filling operation.

SEL will advise their SQEP of the total number of truck and trailer units bringing fill to the site on a monthly basis. The SQEP will then work out the required number of samples based on the one sample/250 T&T loads criteria and these samples will then be collected during the next site visit. This will ensure that the samples tested represent the entire waste mass.

This sampling will be undertaken by the SEL SQEP to provide a level of independence from the Fill operator. The samples are to be dispatched to a suitable accredited laboratory by the SEL SQEP, with copies of the relevant Chain of Custody documentation retained for records. The verification samples shall be tested for the contaminants listed in the WAC and asbestos presence/absence, except that only 1/3 of the samples shall be tested for BTEX species, as these are less common contaminants.
A brief report will be issued to the Fill operator once sampling results have been received and analysed, certifying that the material complies with the Fill WAC or otherwise. This report shall include:

- interpretation of the results against the Fill Facility WAC,
- results of the corresponding random testing of the incoming loads, and
- any relevant AUP permitted activity soil acceptance criteria or other environmental guidelines.

This report shall be prepared within 4 weeks of the verification testing and will also be provided to Council for review. If the verification sampling results identify significant WAC exceedances, the summary report shall include a Contingency Plan outlining proposed measures to be undertaken to prevent further WAC exceedances, and to reduce or mitigate any adverse effects on the receiving environment from the existing exceedances.

5.2.5 Non-compliant Fill Handling Procedures (Waste Rejection)

Relevant rejection procedures set out in this FMP shall be implemented in case of any incoming loads of fill that are either suspected of containing non-complying fill or found to contain non-complying fill. These procedures shall include, but not be limited to:

- All suspicious loads identified prior to placement, and any subsequent loads from the same site, shall be stockpiled in an isolated quarantine area located within the sediment pond catchment area, taped off and clearly identified as being temporarily unsuitable for filling, until either accepted for filling or removed from the site.
- All suspicious loads identified part way through placement shall be identified using hazard tape and shall be temporarily isolated from the filling operation, until either accepted for filling or removed from the site.

- Any identified non-complying fill, or suspicious material that has been quarantined for further sampling and analysis shall be covered with anchored tarpaulins, if left overnight and when rain is anticipated during the working day.
- All quarantined loads shall be sampled at a rate of one sample per truckload (3 locations per truck, composited into one sample) to confirm contamination levels. Only those loads that are confirmed by laboratory analysis to meet the WAC shall be accepted for filling.
- If the laboratory analysis confirms that the material is non-complying fill, then that material must be loaded onto trucks, covered, and disposed of at a site consented to accept such waste.

The consent holder shall keep a record of any load of fill that is rejected, including relevant laboratory analysis reports, the details of the source site(s), and the account holder, the date and time of arrival, approximate volume of the load, and the final destination of the material removed.

5.2.6 Pond Sediment Sampling

Sediment samples from the base of the sediment ponds shall be collected at six monthly intervals and tested for the parameters included in the WAC and for asbestos presence/absence. The samples shall be collected by a SQEP after a period of at least five days without any flocculant dosing. The relevant testing results shall be provided to the Council for review within four (4) weeks of sampling.

Results of the pond sediment testing will be compared to the Interim Sediment Quality Guidelines (ISQG – low trigger value) in Table 3.5.1 (Recommended sediment quality guidelines) of the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC 2000). If the pond sediment samples are found to contain contaminant concentrations above the trigger values set out in the ISQG, then an assessment shall be undertaken by the SE SQEP to determine whether the exceedance is attributable to the filling operation and if so, identify any potential adverse effects on surface water quality associated with the exceedance. Council shall be advised of any exceedance and provided with a copy of the SQEP's assessment within four (4) weeks of sampling.

Should the pond sediment testing results identify that the exceedance in contaminant concentrations is attributable to discharges from the filling operation and adverse effects on surface water quality are occurring, then the SQEP's assessment shall also include a Contingency Plan, which will outline the proposed measures to be taken to reduce or mitigate any adverse effects on the receiving environment arising from the exceedance in contaminant concentrations that has been identified.

5.3 RECORDS, VERIFICATION AND MONITORING

Detailed records shall be maintained by the Fill Operator to provide confirmation that the requirements of this CMP are being followed. These will be kept in electronic format on a database and stored in the Cloud, enabling these records to be accessed by staff at the Fill site office. Records kept on this database will include:

- All waste application forms and supporting information (e.g. copies of site investigation and validation reports);
- All waste acceptance agreements;
- Inspection and testing records;

- Fill random load checking data;
- Fill received volume records;
- Random load sampling results;
- Sub-stage verification sampling results.
- Completed forms, logs, checklists, testing results, registers.

Copies of these records can be provided to Council inspecting officers on request.

Annual reporting shall be provided to Auckland Council summarising the operation over the preceding 12 months, addressing the above matters, as set out in Section 5.6 of this FMP.

5.4 WASTE ACCEPTANCE POLICY TRAINING

Management and staff are trained in the above waste acceptance policy and have the basic knowledge and experience to recognise acceptable and unacceptable fill materials. They have been instructed:

- To visually assess the quality of material at source prior to loading and, if necessary, get a representative sample(s) analysed for contaminants before transporting to site.
- Not to transport any unsuitable materials to site, including any soil with visible discoloration, staining or odour.
- To remove any such materials from site, if found buried in an incoming load or detected on-site and dispose of them to an appropriate facility (e.g. approved landfill).

5.5 UNIDENTIFIED CONTAMINATION

If any previously unidentified potential or actual contamination is discovered during works on site, the Accidental Discovery Protocols for Contamination (Section 2.10.2) should be followed.

Within 24 hours of the unexpected contamination discovery, Team Leader – Southern Monitoring, AC is to be notified by email to monitoring@aucklandcouncil.govt.nz;

Works in the affected area of the site will not recommence until expressly authorised by the SQEP, with the Team Leader – Southern Monitoring notified of this within 24 hours.

Subject to the approval of the Fraser Thomas SQEP, the affected material may be relocated to a secure stockpile, located on an impervious surface within the sediment pond catchment area and covered with tarpaulins or similar impervious cover, or alternatively placed in covered bins, while waiting for the laboratory results.

5.6 ANNUAL REPORTING

An annual compliance report (ACR) shall be provided to Council for review covering the period 1 July to 30 June, by 30 July (to allow time for reporting), each year that the filling operation is being undertaken. The ACR shall be prepared by a SQEP in accordance with Contaminated Land

Management Guidelines, No.1, Ministry for the Environment (revised 2011). The ACR should contain sufficient detail to address the following matters:

(a) a summary of the works undertaken, including a plan indicating filled areas and the volume of fill imported onto site, and a statement confirming whether the importation of fill has been completed in accordance with the FMP.

(b) a summary of soil testing undertaken, including pre-approval, random validation and independent verification testing, together with relevant laboratory transcripts, and interpretation of the results against the WAC.

(c) a summary of sediment testing undertaken, with the interpretation of the analytical results in the context of all environmental guidelines that the SQEP considers relevant.

(d) details of any material removed (rejected) off site, if applicable, including relevant disposal dockets (if available).

(e) details regarding any incidental spills, complaints and/or breaches of the procedures set out in the revised FMP required by condition 51 and the conditions of this consent, if applicable

(f) details on the proposed filling operation and associated earthworks over the next 12 months.

5.7 SITE CLOSURE REPORT

Within three (3) months of completing or abandoning the filling operation, a Site Closure Report (SCR) shall be provided to Council for review. The SCR shall be prepared by a SQEP in accordance with Contaminated Land Management Guidelines, No.1, Ministry for the Environment (revised 2011). The SCR should contain sufficient detail to address the following matters:

(a) a summary of the works undertaken, including a surveyed plan of the finished level, the volume of fill imported onto site, details on the final topsoil cover layer, and a statement confirming whether the works have been undertaken in accordance with this FMP.

(b) a summary of fill testing undertaken, including pre-approval testing at the source sites, random validation testing at the site, and independent verification testing, including the interpretation of the results against the WAC.

(c) the total volume of rejected fill material removed off site, including alternative-disposal dockets (if available).

(d) details of any required ongoing monitoring and management of the topsoil cover over the fill area.

6.0 EROSION AND SEDIMENT CONTROL PLAN

Required erosion and sediment control measures will be installed and maintained during the works in accordance with best practice, utilising recommended measures set out in GD05 (Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region 2016/005) (June 2016). This section comprises an Erosion and Sediment Control Plan (ESCP) and summarises the proposed erosion and sediment control measures for the site during filling, covering both the northern and southern fill areas. The erosion and sediment control measures are shown on Drawings 33250/121, 33250/161, 33250/180, 33250/181 & 33250/251.

Each year, by no later than 10 working days prior to 30 September, SEL will submit to Council for certification either a letter confirming that works are to proceed in accordance with the approved Stage ESCP, or a revised ESCP shall be provided instead, should changes to it be required due to changes in filling areas or sequencing, changes in current industry practice, issues with the current sediment controls or observed effects on the receiving environment. This will include any changes to the final design, location and sequencing of the erosion and sediment control measures. The revised ESCP will not be implemented on site until certified by Council.

Prior to commencement of filling on the Northern and Southern Fill Areas, SE shall submit to Council a certificate signed by a suitably qualified person, which certifies that the erosion and sediment controls relating to that Fill Area have been constructed in accordance with the certified ESCP for that Fill Area. The certification shall address but not be limited to the matters specified in condition 33 of the resource consent.

6.1 OBJECTIVES

Appropriate erosion and sediment control measures will be provided on-site in accordance with the AUP: OP and GD05. The main rationale and objectives of these measures are:

- To minimize disturbance to areas where erosion may occur, including steeper slopes and exposed land.
- To stage filling to minimize the area worked on at any one time, to minimize the extent and duration of temporary topsoil stockpiles and to ensure revegetation can occur in a staged manner, so as to reduce the risk of silt/sediment running off the site and entering the downstream receiving environment.
- To ensure exposed areas are stabilized as soon as practicable by sowing, hydroseeding or mulching to prevent erosion.
- To install perimeter controls such as diversion drains and retention ponds to prevent sediment leaving the site.
- To maintain the gravel surface of the access road to minimize the potential for silt/sediment to be tracked off site.
- To provide guidance in case of unforeseen events including poor weather.
- To ensure all control measures are inspected and repaired after storm events.
- To ensure that the site is rehabilitated prior to the removal of sediment control measures.

- To mitigate dust emissions from the site during earthworks so as not to adversely affect any nearby properties.
- To minimize potential environmental effects.

6.2 EROSION AND SEDIMENT CONTROL MEASURES

6.2.1 General

The northern and southern fill areas have been designed to form their own sub-catchments during filling. The proposed sediment ponds will capture all runoff from these sub-catchments and discharge treated runoff to the existing watercourses running through the site.

Sediment will be removed primarily by the sediment retention ponds. These ponds and the associated diversion drains/bunds have been designed in accordance with GD05 and best practice.

All installation works for the proposed stormwater system including any minor earthworks and trenching will be undertaken in accordance with relevant Council requirements for erosion prevention and sediment control.

6.2.2 Progressive Stabilisation

Earthworks shall be progressively stabilised against erosion at all stages of the filling activities so that no more than 2ha is exposed at any one time.

6.2.3 Wheel Washing

A water blaster and gravel pad washing facility will be provided on-site near the site office to clean the wheels of exiting vehicles, prior to exiting the site. Washwater will be allowed to soak into the ground.

6.2.4 Drains (up to 10% gradient)

All drainage channels will be constructed in accordance with GD05. They will have earthen bunds on the downgradient side, and will be sized to take the 5% AEP storm with additional freeboard. The dimensions of the drains are shown on drawing 33250/181 and longitudinal gradients generally in the range of 1-10% as shown on drawings 33250/122 and 162. Any drains in excess of 2% gradient or 1m/s design velocity will be lined to provide for protection against scour/erosion. Drain sizings are based on the most conservative drain gradient for each drain type. Prior to construction, drain sizings may be revised to reflect actual gradients for different drain sections.

6.2.5 Drains (>10% gradient)

Drawings 33250/122 and 162 show that there are some sections of the perimeter dirty water drains that are over 10% in gradient, notably:

- Drain 1 – chainage 0-45m, and chainage 178-196 (63m)
- Drain 2 – chainage 94-134m and chainage 257-296 (52m)
- Drain 3 – chainage 196-246m (50m)
- Drain 4 – chainage 23-81 (58m)
- Drain 5 – chainage 7-123m and chainage 193-275 (198m)

Specific design will be required for these sections of drain to ensure they are adequately lined to provide for scour/erosion protection. If lined open channels are used, drop pits or manholes or other scour/erosion devices will be required at the end of each steep section of drain to reduce velocities and minimize scour/erosion. Consideration will also be given to using pipe drop structures or flumes in some areas. These comprise a temporary pipe structure or constructed flume placed from the top to bottom of a steep slope. Any pipe drop structures or flumes would be designed in accordance with GD05 or by specific design.

6.2.6 Drop Out Pits

Drop out pits may be used on steeper sections of the site within the dirty water diversion drain to allow heavier sediment particles to drop out before they enter the sediment ponds, reducing the load on the ponds. Drop out pits are approximately 500-1,000mm deep and 1,000mm wide. They are easier to maintain and typically cheaper to desilt than desilting the sediment ponds.

6.2.7 Sediment Retention Ponds

Three sediment retention ponds (SRPs) are proposed, sized for the maximum dirty water catchment expected in each case, including the area of drains and sediment pond area. In reality, the worst-case scenario is considered to be a total catchment area of 2ha. General details of the sediment retention pond are shown in Table 6.

Table 6: Sediment Pond Details

Item	Northern Area Ponds	Southern Area Pond
Catchment Area (ha)	2.0	1.2
Design volume (3% criteria) (m^3)	600	360
Dead storage (m^3)	180	108
Live storage (m^3)	420	252
Freeboard (m)	0.3	0.3
Side slopes	1V:2H	1V:2H
Decants	2 decants with 133 holes each	1 decant with 160 holes
Discharge pipe	150	150
Primary spillway	150mm riser pipe	150mm riser pipe
Secondary spillway	7.8m base width, 1V:3H side slopes, 0.3m depth	7.8m base width, 1V:3H side slopes, 0.3m depth

6.2.8 Chemical Flocculation

During the very early stages of filling, dirty runoff generated from the fill area will contain dissolved and particulate particles deriving from the natural soils on-site. As fill material is brought in, the characteristics of the dirty runoff will change, being increasingly controlled by the nature of the fill being disposed of on-site. In this case the nature of the dirty runoff entering the sediment pond will depend on the type and extent of the exposed soil types for dirty runoff and the extent and ground cover of stabilized/restored or yet to be disturbed areas.

For these reasons, flocculation batch testing will be undertaken of the natural soils on-site to determine if chemical flocculation is needed during the early stages of filling and the required dosing rate. Ongoing monitoring will then determine if any changes are required to the flocculant dosing regimen. Bench testing will be undertaken for PAC (polyaluminium chloride), while the potential use of an organic flocculant will also be considered, subject to performance and cost considerations.

6.2.9 Mulching, Temporary and Permanent Seeding

The primary objective of erosion and sediment control is to minimise the time ground is exposed prior to permanent stabilisation. If delays occur during the works or an intermediate form of stabilisation is required (such as on stockpiles or on fill prior to topsoil placement), mulching, geotextile fabric or hydroseeding may be utilised.

Permanent stabilisation can be achieved via the application of topsoil (150mm minimum), followed by seeding or planting. Permanent stabilisation is designed to permanently stabilise soil on disturbed areas to reduce sediment and runoff to downstream or off-site areas.

Application rates for seeding and mulching shall be as stated in GD05, summarised in Table 7.

Table 7: Typical Seeding, Fertiliser and Mulching Application Rates

Activity	Description	Application Rate
Temporary Seeding	Annual ryegrass	100-250kg/ha
Permanent Seeding	Perennial ryegrass – 70% Fescues/cocksfoot – 20% Clover/lotus – 5% Browntop – 5%	200-400kg/ha
Fertiliser Application	N:P:K (15:10:10)	200-800kg/ha
Maintenance fertiliser	N:P:K (15:10:10) and urea	As required
Mulching	Straw or hay	4,000-6,000kg/ha
	Hydromulch (minimum 80% virgin or recycled wood)	2,200-2,800kg/ha
	Wood chip	10,000-13,000kg/ha

6.2.10 Dust Control Measures

Dust control aims to prevent or reduce the movement of dust from disturbed soil surfaces that may create nuisance, health hazards, traffic safety problems and/or off-site damage and discharge to the environment.

Areas subject to dust generation and movement include open fill areas exposed to wind, stockpiles of materials, bulk materials handling or vehicle movements.

Dust will be controlled at the Fill Facility by measures from the following toolbox:

- Use of water as necessary to dampen exposed surfaces and vehicles accessways, using water sourced from the sediment ponds, or from a dedicated storage tank supplied by the existing on-site bore, if insufficient water is available from the ponds.
- Maintaining vehicle accessways with sufficient seal or aggregate material.
- Restricting the speed of vehicle movements to no more than 20kph.
- Daily monitoring for wind conditions and dust discharges around the site.
- Minimising the extent of the exposed area at any one time.
- Limiting traffic to established haul roads and minimising travel distances by optimising site layout.
- Minimising tracking of dirt on vehicle wheels onto paved surfaces.
- Minimising drop heights when loading and unloading vehicles.
- Limiting stockpile heights.
- Providing shelter from the wind for stockpiles.
- Consolidating and sealing off loose surface material.
- Progressive mulching and grass establishment, as works are completed in different areas.
- Use of soil binders to form a cohesive membrane or protective crust that reduces windblown dust generation (refer GD05, Section G8.0 for further details) (contingency measure).
- Use of textiles as temporary covers on stockpiles or partially completed batter slopes, or as permanent cover (e.g. vegetation promotion blanket) on completed areas (contingency measure).

6.2.11 Weather Monitoring

Monitoring and predicting rainfall is essential to the performance of erosion and sediment control and civil works in general. All efforts shall be made to predict rainfall and undertake any high-risk work when extended periods of fine weather are predicted. When rainfall is predicted, all efforts shall be made to ensure that the measures mentioned above are in place prior to rainfall and further inspections are made during rainfall and after to ensure that erosion and sediment control measures are functioning as intended.

6.3 MAINTENANCE

The sediment control measures shall be regularly monitored during operations and after any significant rain event. Maintenance of all structures including diversion drains/bunds and sediment ponds shall be carried out throughout the course of site earthworks and restoration.

Maintenance shall be the responsibility of the Operator and shall be carried out at appropriate frequencies ranging from daily to weekly, as appropriate and subsequent to any storm event that produces runoff. The maintenance inspection shall be recorded in accordance with the schedule attached as Appendix C and include, but not be limited to, the following:

- Inspection of the accessway to the site, including:
  - Repair of any accessway damage, including aggregate loss.
  - Inspection of the Hunua Road frontage and removal of any silt/sediment or other accumulated debris manually and/or by machine sweeping.
  - Check surrounding areas for dust and rubbish associated with works.
- Inspection and maintenance of any temporary roading/tracking.
- Inspection of topsoil and unsuitable stockpiling areas, including:
  - Inspecting and repairing silt controls, as necessary.
  - Inspecting the condition of mulch, hydroseed, grass and undertaking any remedial works required.
- Inspection of temporary diversion bunds and channels, including:
  - Checking for scour, sediment build-up, bund/channel integrity and outlet erosion, with remedial measures undertaken as required;
  - Checking for exposed areas and re-hydroseeding, where relevant.
- Inspection of the sediment retention pond, including:
  - Checking embankments, spillways, level spreader and any exposed areas.
  - Checking the sediment depth in the pond forebay and cleaning out as required (generally when 50% full of sediment);
  - Checking the sediment depth and removing sediment once it reaches 20% of the total sediment retention pond volume. To assist in gauging sediment loads, clearly mark the 20% volume height on the decant riser. The sediment shall be moved to a securely isolated and covered area such as the spoil storage area.
  - Checking the operation of the decant arrangement.
  - Checking the clarity of treated runoff to determine if supplementary chemical application is needed.
- Dust monitoring:
  - Monitor dust emissions on a daily basis. In windy, dry conditions, review dust emissions continuously.
  - Reapply water as required to effectively manage levels of dust generation, especially when soil moisture conditions become low during hot and windy conditions.
- Inspection of completed Fill areas including:
  - Checking for exposed areas and re-seeding, mulching or turfing the exposed area;
  - Checking for erosion and regrading the slopes and stabilizing, as necessary.

6.4 DECOMMISSIONING

Sediment control works may only be decommissioned once it has been determined that all Fill areas have been suitably stabilized through consultation and inspection by the Operator and Council. Decommissioning shall be undertaken by light weight equipment or manually where possible and include the following:

- Respread any topsoil stockpiled and decommission the topsoil stockpiling area.
- Backfill any temporary collection drains and/or remove any diversion bunds. Regrade localised areas to ensure overland flow occurs as broad sheet flow and is not channelised. Turf or sow grass seed as appropriate.
- Remove the embankments, bunds and decant structure and fill in the sediment removal ponds. Reinstate the areas by grassing.

6.5 INFORMATION AND MONITORING

It is important that good relations be maintained with Auckland Council (incorporating District and Regional Plan requirements) and potentially affected neighbours throughout the duration of filling.

Immediate neighbours will be informed of the intended scope and duration of filling and kept informed of any changes to filling activity throughout the duration of the works. Refer Section 2.11 above.

All site staff and truck drivers bringing fill to the site shall be made familiar with the Fill Management Plan prior to entering the site.

The Operator should provide feedback regarding the performance of the erosion and sediment control measures and amendments shall be made as required.

No other monitoring is proposed other than what is required in the consent conditions.

7.0 NUISANCE MANAGEMENT

The main potential nuisances from the site are noise, vibration, truck movements, dust and litter.

7.1 NOISE

Noise will be produced by trucks, bulldozer and excavator movements during normal working hours over the duration of filling activity. It will also be produced during construction works for the Fill Facility, which include construction of the proposed drainage and sediment control works, access road construction and earth (noise) bund construction.

Construction noise shall be measured and assessed in accordance with the requirements of New Zealand Standard NZS 6803:1999 “Acoustics – Construction Noise”, as required. The noise rating level

from construction works shall not exceed 70dB L_{Aeq} and 85dB L_{AFmax}, measured or assessed 1m from any occupied building that contains an activity sensitive to noise located on any other site.

Operations noise shall be measured in accordance with the requirements of New Zealand Standard NZS 6801:2008 "Measurement of Environmental Sound" and assessed in accordance with New Zealand Standard NZS 6802:2008 "Acoustics – Environmental Noise", as required.

Noise rating levels for the filling operation on site, including on-site truck movements, as measured within the notional boundary of adjacent sites not owned by the SE must not exceed the following levels provided in Table 8.

Table 8: Noise Limits

Time Period	Noise Level
7am – 6pm Monday to Friday 8am – 1pm Saturday	55 dB L_{Aeq}
At all other times	45 dN L_{Aeq} 75 dB L_{AFmax}

Work shall not continue on the site if compliance with the above standards is not achieved. The Operator will select appropriate measures from the following toolbox to achieve compliance with these requirements:

(a) Equipment selection:
- Prioritisation of quieter construction methodologies, where appropriate (e.g. rubber tracked equipment over steel tracked equipment).
- Sizing equipment suitably for the proposed task;
- Maintaining equipment and using exhaust silencers and engine covers;
- Avoid tonal reversing or warning alarms (not allowed by consent). Suitable alternatives may include flashing lights, broadband audible alarms or reversing cameras inside vehicles.

(b) General measures:
- Avoid unnecessary noise, such as shouting, the use of horns, loud site radios, rough handling of material and equipment, and banging or shaking excavator buckets;
- Avoid high engine revs through appropriate equipment selection and turn engines off when idling;
- Maintain site accessways to avoid pot holes and corrugations;
- Mitigate track squeal from tracked equipment, such as excavators;
- Locate stationary equipment like the wheel wash away from noise sensitive receivers. Use site buildings and material stores to screen them;
- Orient mobile machinery to maximise the distance between the engine exhaust and the nearest sensitive building façade;
- Utilise noise barriers and enclosures where appropriate;
- Undertake monitoring as appropriate;

- Ensure mobile machinery, such as excavators, is operated carefully and with consideration to avoid the generation of unnecessary vibration.
- No engine braking by truck drivers on Hunua Road around the site entrance to limit any noise effects on local residents.

(c) Noise Barriers and Enclosures:

- Install temporary noise barriers prior to works commencing and maintain these throughout the works;
- Use enclosures where a noise barrier is not sufficient to achieve compliance with the noise limits and it is practicable to do so.

7.2 VIBRATION

Any effects of vibration will be temporary and limited to the duration of filling. The effects of vibration will be limited by following relevant measures from DIN 4150-3:1999 "Structural Vibration – Part 3 Effects of Vibration on Structures".

7.3 TRUCK MOVEMENTS

Truck numbers will be no greater than 96 loaded trucks/day (192 truck movements/day and 5 loaded trucks/hr and 10 total truck movements/hr. Mitigation measures to minimise potential traffic impacts include the following:

- The entry/exit point is clearly defined and will ensure that the safe and convenient movement of traffic, pedestrians and cyclists is not compromised.
- All fill imported to the site for off-site disposal shall be transported in covered trucks.
- All exiting trucks and truck and trailer units will be required to stop on the water blaster pad near site office for a thorough clean prior to exiting the site.
- The adjoining roading network will be kept clear of mud and debris at all times, through visual checks and periodic sweeping as required.

7.4 DUST CONTROL MEASURES

Dust will be controlled by the measures set out in in Section 6.2.10 of this FMP.

7.5 SMOKE

Burning will be prohibited on-site and hence smoke will not be an issue.

7.6 LITTER

The fill materials deposited on-site are not expected to create any litter problems as they are relatively dense and unlikely to be blown around by the wind. Any minor bits of litter (e.g. plastic) found on-site will be picked up and disposed of appropriately.

8.0 CONCLUSIONS AND RECOMMENDATIONS

This Fill Management Plan has been prepared generally in accordance with the requirements of the WasteMINZ Technical Guidelines for Disposal to Land (2018), the AUP:OP cleanfill requirements and GD05. Implementation of the measures in this plan, including operation, inspection, maintenance and record keeping requirements, should ensure that the potential negative environmental effects associated with filling activities are avoided or mitigated.

Figures and Drawings

Appendix A

Customer Forms

362 Jones Road, Hunua - Fill Declaration

Form 1EL)

Contractor/Customer: _____

Address (Fill source site): _____

Email Address: _____

Existing Land Use: _____

Phone: _____ Mobile: _____

I have read and understood the waste acceptance criteria attached

Yes ☐

No ☐

I have read and understood the Ministry for the Environment HAIL list attached:

Yes ☐

No ☐

Note: It is up to the contractor/customer to supply independent test results or a clearance from a SQEP before the material can be accepted for disposal, if the source of any fill material is from one of the industries on the MfE HAIL list.

Contractor/Customer Declaration:

I accept that should any materials not meet the waste acceptance criteria, _____(contractor/customer) will be liable for all costs associated with removal of the non-complying material to a consented facility and liable for any consequential costs imposed on the Jones Rd Fill Operator.

Position held (Owner, Occupier or Director):_____

Signature:_____

Date: _____

362 Jones Road, Hunua Fill Facility - Waste Acceptance Criteria

Any fill material must satisfy the following waste acceptance criteria:

Cleanfill Material: natural material such as clay, gravel, sand, soil and rock which has been excavated or quarried from areas that are not contaminated with manufactured chemicals or chemical residues as a result of industrial, commercial, mining or agricultural activities. It excludes:

- hazardous substances and material (such as municipal solid waste) likely to create leachate by means of biological breakdown;
- product and materials derived from hazardous waste treatment, stabilisation and disposal practices;
- materials such as medical and veterinary waste, asbestos, and radioactive substances;
- soil and fill material which contain any trace element specified in Table E30.6.1.4.2 at a concentration greater than the background concentration in Auckland soils specified;
- sulfidic ores and soils (see below);
- combustible components;
- more than 5% by volume of inert manufactured materials (e.g. concrete, brick, tiles); and
- more than 2% by volume of attached biodegradable material (e.g. vegetation).

And will comply with the following waste acceptance criteria (WAC) from chemical testing based on:

- AUP: OP upper background range for trace inorganic elements in volcanic soils in the Auckland region.
- WasteMINZ guidelines for Clean fills (Class 5 landfills) for synthetic organic compounds.

Element (total recoverable)	Maximum Acceptance Concentration (mg/kg)
Inorganics	
Arsenic	12
Boron	260
Cadmium	0.65
Chromium	125
Copper	90
Lead	65
Mercury	0.45
Nickel	320
Zinc	1,160
Organics	
TPH C_7-C_9	120
TPH C_{10}-C_{14}	58
Benzene	0.0054
Ethylbenzene	1.1
Toluene	1.0
Total xylene	0.61
Benzo(a)pyrene (equivalent)	2 (interim)
Total DDT	0.7
Asbestos	No detect (P/A or SQ test)

Contractor/customer signoff: _____

Date: _____

Appendix B

Record Sheet

FORM 2: 362 Jones Road, Hunua Fill Facility – Vehicle Register

Date & Time	*Vehicle*			*Source site address / Type of fill material*	*Fill Declaration (Form 1) signed*	*Approx. Volume*	*Comments*	*Driver signature*
	Company & driver	*Vehicle type & size*	*Vehicle registration*					

FORM 3: 362 Jones Road, Hunua Fill Facility – Dust Assessment Log

Date & Time	*Location*	*Visual Assessment*	*Action*

FORM 4: 362 Jones Road, Hunua Fill Facility – Complaints Register

Complaint No:		*Location:*	
Date:		*Time:*	
Complainant Name			
Contact Details	*Phone Number*		
	Address		
Complaint			
Weather Conditions (wind speed & direction)			
Internal Truck Movements (at time of incident)			
Action			

FORM 5: 362 Jones Road, Hunua Fill Facility – Source Site Acceptance Checklist

Customer:			*Date:*	
Source Site (address):			*Volume: (m^3)*	
HAIL site? (incl ex-horticulture)	Y / N	*HAIL activity:*		
Auckland CBD site	Y / N	*HAIL activity:*		
Report by SQEP?	Y / N	*SQEP Name:*		
Parameters tested:	Heavy metals:			
	Arsenic	Y / N	*TPHs*	Y / N
	Boron	Y / N	*BTEX*	Y / N
	Cadmium	Y / N	*PAHs (as BAP_{eq})*	Y / N
	Chromium	Y / N	*DDT*	Y / N
	Copper	Y / N	*Asbestos*	Y / N
	Lead	Y / N	*Others (specify):*	
	Mercury	Y / N	_____	Y / N
	Nickel	Y / N	_____	Y / N
	Zinc	Y / N	_____	Y / N
	Other metals	Y / N		
No. of samples tested:			*Results comply? **	Y / N
Accepted as suitable Fill:				
SQEP Approval: *Name:* *Signed:* *Date:*				

Appendix C

Maintenance Schedule

362 Jones Road, Hunua Fill Facility – Maintenance Schedule

Item	Inspection Task	Issues	Action Taken
Main Accessway	Surface damage, including aggregate loss		
	Hunua Rd frontage: silt/sediment/debris		
	Dust/rubbish in adjacent areas		
Internal access and haul roads	Moisture levels appropriate		
	Surface damage, including aggregate loss, scour/erosion, etc.		
	Table drains – scour/erosion		
	Discharge from culvert under Jones Rd – scour/erosion		
Topsoil/unsuitables stockpile areas	Silt controls		
	Cover		
Temporary diversion bunds/ channels	Scour/erosion		
	Sediment buildup		
	Bund/channel integrity		
	Outlet erosion		
	Cover on exposed areas		
Sediment pond	Inlet		
	Level spreader		
	Embankment		
	Forebay (desilt if sediment >50% vol)		
	Pond (desilt if sediment >20% vol)		
	Decant device		
	Primary spillway (MH crest)		
	Emergency spillway		
	Discharge pipe & outlet		

Item	Inspection Task	Issues	Action Taken
	Discharge clarity		
	Flocculation		
	Sediment sampling		
Completed fill areas	Integrity of cover		
	Scour/erosion		
Water bore	Bore pump		
	Pump flow calibration (5yr intervals)		
Wheel wash	Check washwater is soaking into ground and no dirty runoff occurring as overland flow		

Fraser Thomas Limited
21 El Kobar Drive : East Tamaki : AUCKLAND 2013
PO Box 204006 : Highbrook : AUCKLAND 2161
NEW ZEALAND
TEL +64 9 278 7078 : E-MAIL sfinnigan@ftl.co.nz

Fraser Thomas
ENGINEERS • RESOURCE MANAGERS • SURVEYORS

MEMORANDUM

Date: 24 February 2025 33250

From: Sean Finnigan

Subject: Jones Rd Cleanfill – Hunua Road Vegetation Control

To: Vance Hodgson

The Commute Traffic Assessment Report (22 November 2024) identifies three segments of Hunua Road where sightline improvements would allow one truck to observe another from a section where two-way movement is achievable and improve the existing road environment. These areas are shown below in Figure 1.

Figure 1: Segments of Hunua Road requiring Sightline Mitigation

The geology at locations A, B and C comprises massive to thin bedded, lithic volcaniclastic metasandstone and argillite of the Waipapa Group (greywacke) as shown in Figure 2.

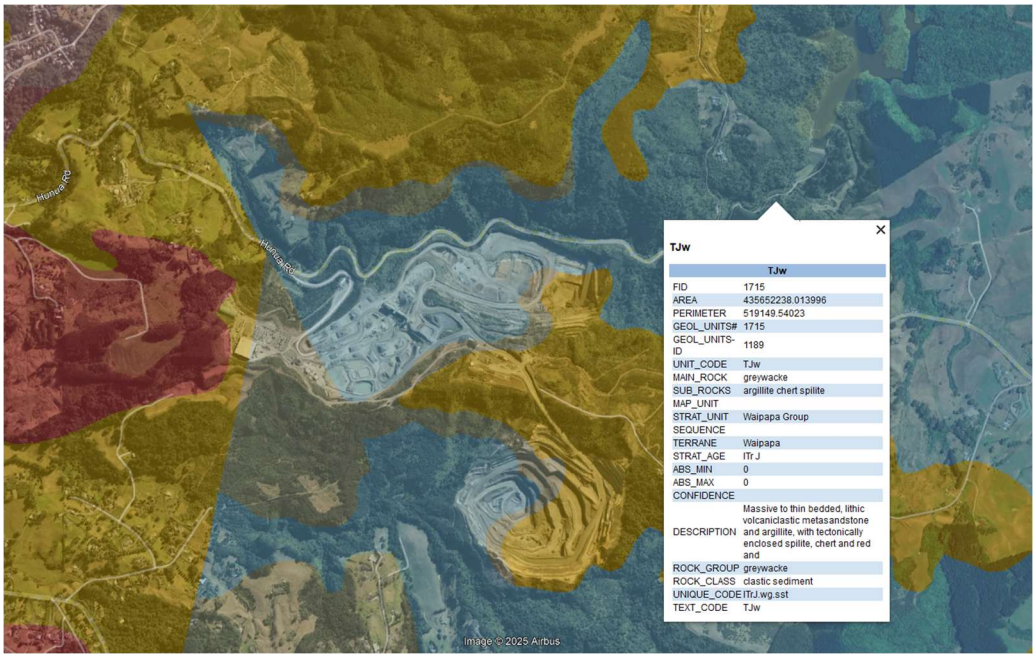


Figure 2: Local Geology (NZ geological map, scale 1:250,000, Auckland, Sheet 3 (2001))

This memo comments on the options of vegetation clearance versus vegetation trimming as potential mitigation options from an engineering perspective. In all cases, vegetation trimming is preferred for the following reasons:

(a) The areas identified for sightline mitigation are all located on the stream bank between the road and Hunua Stream. These areas all form one side of the Hunua Gorge. They are very steep, typically having gradients of around 0.90-1.22V:1H (42-51^{o}).

(b) The vegetation of concern is generally comprised of typical roadside vegetation that dominates the Hunua Road corridor and has emerged in the road reserve and associated embankments. This includes a dominance of non-indigenous species that thrive in these roadside environments including pampas, privet, poplar, gorse, agapanthus, wild ginger, blackberry with some small manuka, mahoe, rangiora etc.

(c) Removal of existing vegetation has the potential to destabilise the existing gorge sides and removal is not necessary to achieve the sightline improvement outcomes for what we understand is an existing sightline issue not exacerbated by the proposed activity. Removal of the rootball during felling or its gradual decay over time if left in place, will further exacerbate stability issues in the short and medium term respectively. Ultimately, if no remedial works are done post-vegetation removal, this would likely lead to undermining, slippage or failure of the road. The removal process itself would be expensive, likely involving skilled tree removal experts removing the trees with the trees having to be winched out on to trucks for removal and disposal. This would require closure of at least one lane of the road for reasonable time periods. Expensive bank stabilisation works would likely be required to mitigate the risks of stream bank failure which if not done, would then likely lead to undermining, slippage or failure of the road.

(d) In contrast, vegetation trimming would only trim back targeted vegetation so as to improve the sightlines. It could be done relatively quickly with an extendable cutting arm from the road and support vehicles to avoid road closures. This task could be added into AT's regular monitoring and maintenance programme which we would assume already includes Hunua Road. This is the most effective and efficient method to achieve the sightline improvement outcomes, avoid impacts on the road formation and is a typical activity in road corridors.

AREA A: Commute report excerpts:

Figure 6-6: Sight Distance Assessment (Section A)

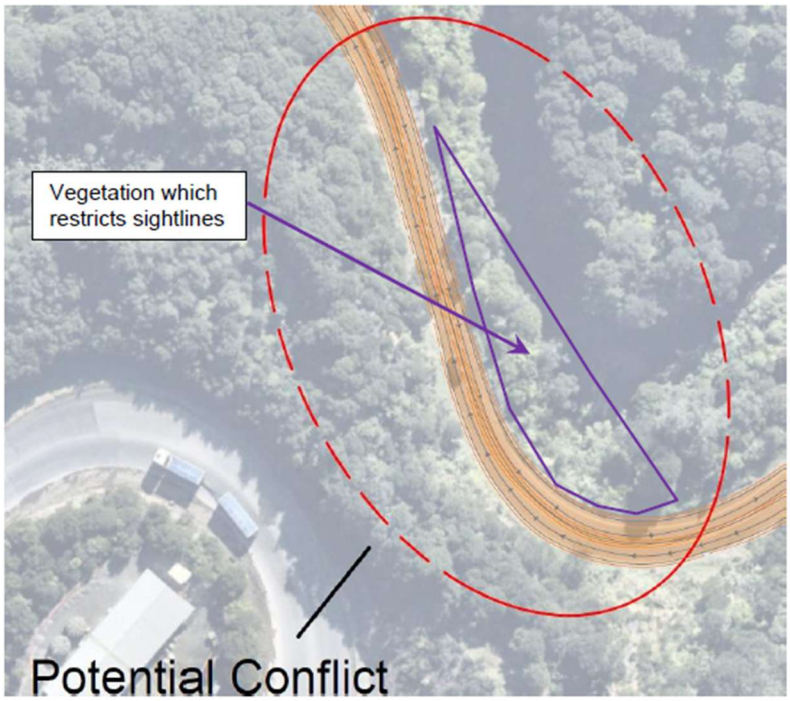
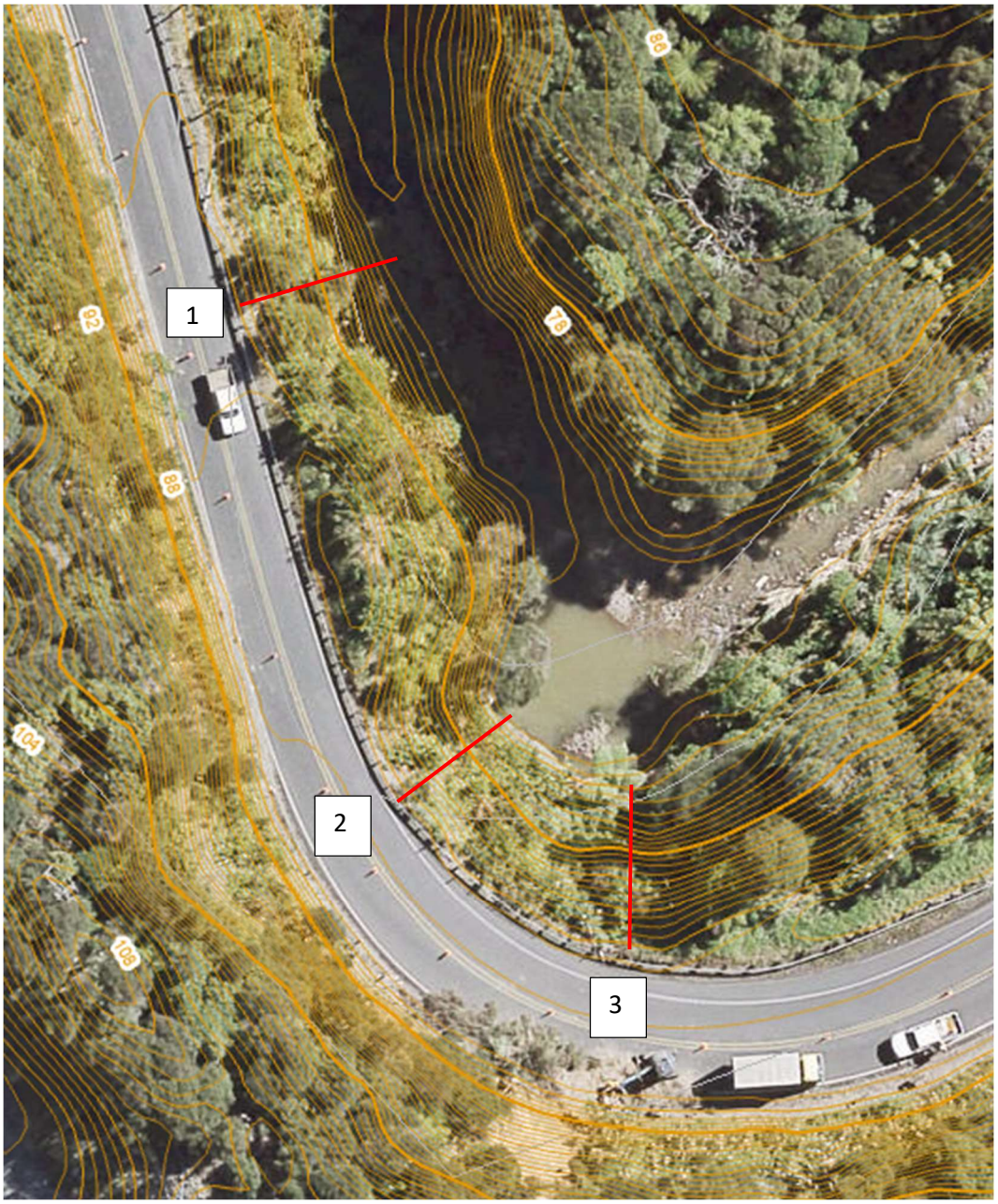


Figure 6-7: Sight Distance Assessment (Section A)

Visibility when travelling eastbound	Visibility when travelling westbound
	

FTL Area A Slope Assessment



Location	GL (start) mRL)	GL (end) (mRL)	Horizontal distance (m)	Gradient
1	86	75	10	1.1V:1H (48°)
2	86.5	75.25	9.2	1.22V:1H (51°)
3	86	76	11.0	0.90V:1H (42°)

AREA B: Commute report excerpts:

Figure 6-8: Sight Distance Assessment (Section B)

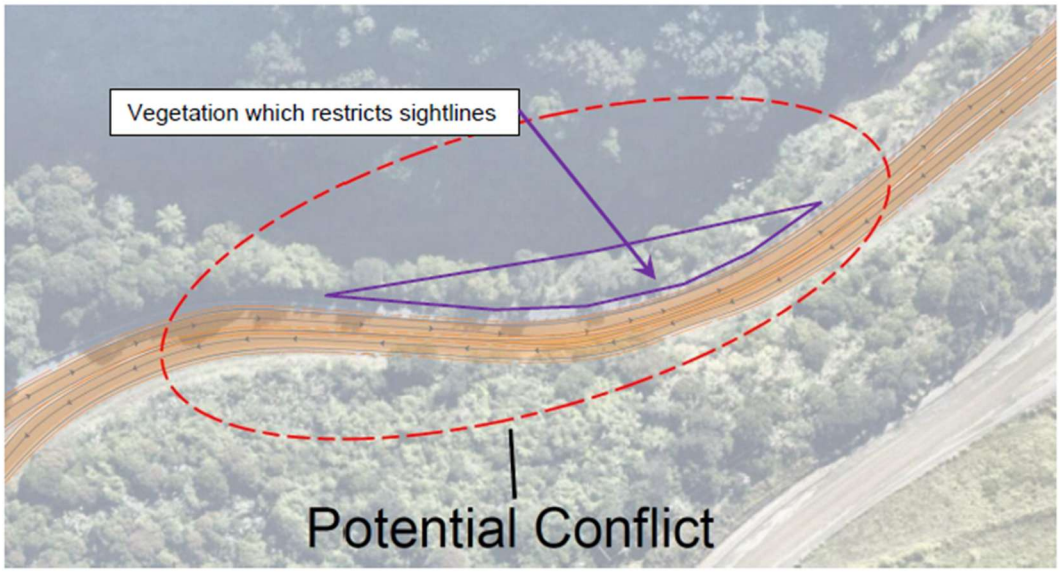
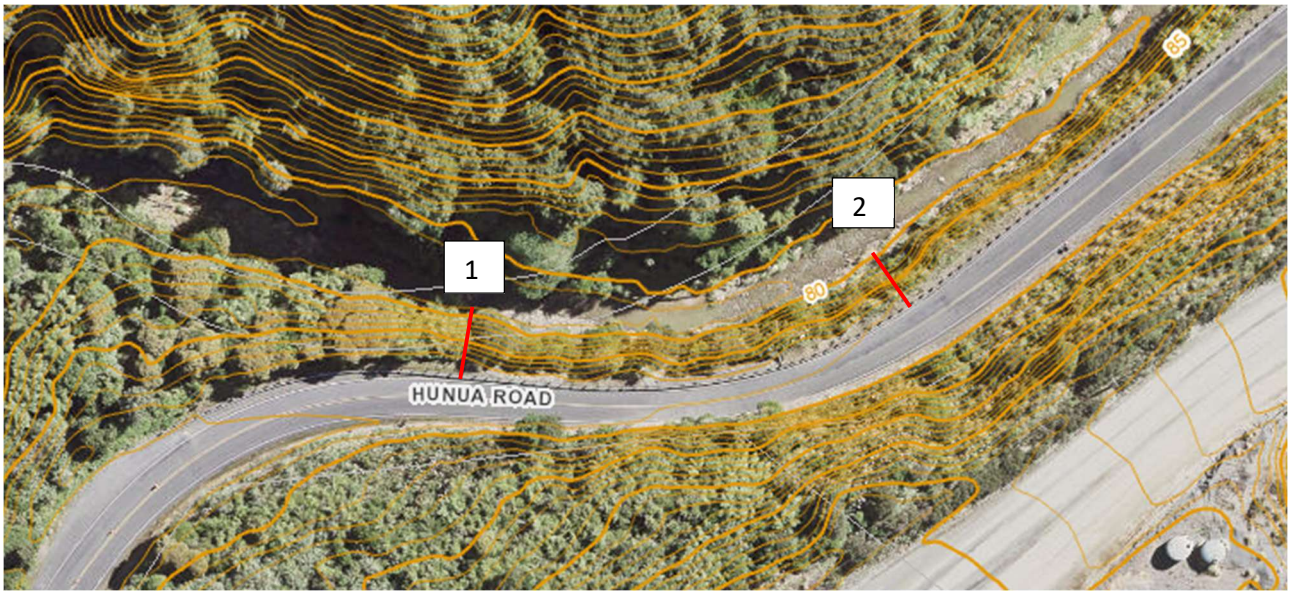


Figure 6-9: Sight Distance Assessment (Section B)

Visibility when travelling eastbound	Visibility when travelling westbound
	

FTL Area B Slope Assessment



Location	GL (start) mRL)	GL (end) (mRL)	Horizontal distance (m)	Gradient
1	88	80	6.9	1.16V:1H (49°)
2	88	80	7.4	1.08V:1H (47°)

AREA C: Commute report excerpts:

Figure 6-10: Sight Distance Assessment (Section C)

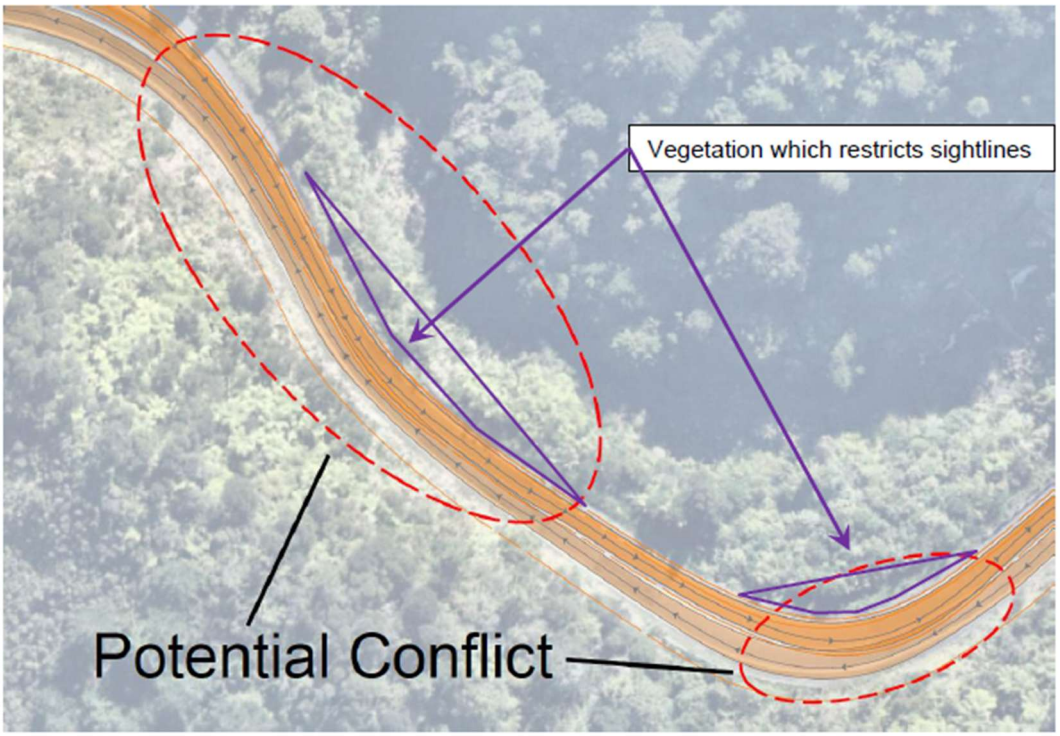
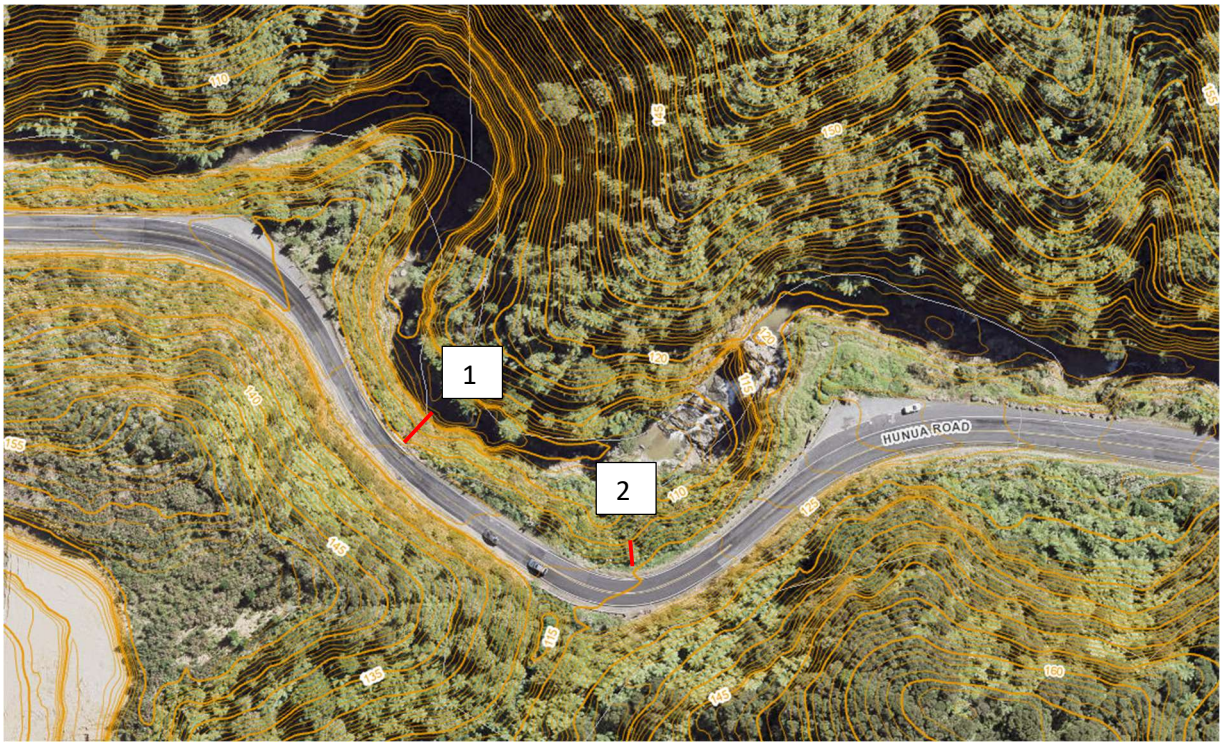


Figure 6-11: Sight Distance Assessment (Section C)

	Visibility when travelling eastbound	Visibility when travelling westbound
Western Segment		
Eastern Segment		

FTL Area C Slope Assessment



Location	GL (start) mRL)	GL (end) (mRL)	Horizontal distance (m)	Gradient
1	116	104	10.2	1.18V:1H (50°)
2	120	118	4.6	0.43V:1H (23°) But 0.76V/1H over lower half (37°)

Technical Memo

To: Vance Hodgson
HPC Planning Consultants
Pukekohe

From: Rob Pryor
Director | Registered Landscape Architect
LA4 Landscape Architects Ltd

Date: 25 February 2025

BUN60440759 – 362 Jones Road, Drury

In regard to Council's s92 Request for Further Information, I provide a further response:

Auckland Transport

4(d) *The application identified several bends along Hunua Road where truck tracking shows overlap for two-way truck movements. This presents a potential adverse safety effect as there will be a significant increase in trucks using this road. To mitigate these adverse safety effects, the applicant suggested improving the sightlines of oncoming trucks by trimming vegetation that currently blocks sight distance. Trimming these trees would enhance visibility for truck drivers, allowing them to slow down and wait for an oncoming truck to complete the turn around the bends. Given the increase in truck movements, this mitigation is relevant to address the potential adverse safety effects. As a result of this, the applicant will need to review this tree trimming periodically.*

Please confirm how often tree trimming would need to occur and also provide a further assessment on why periodic tree trimming would reduce potential adverse effects more than the option of complete vegetation removal.

Response:

From a landscape perspective, maintenance is preferable to tree removal. The vegetation flanking Hunua Road is noticeably dominated by non-indigenous species that thrive in these roadside environments including, pampas, privet (currently in flower), poplar, gorse, agapanthus, wild ginger, blackberry with some small manuka, mahoe, rangiora and other species. I presume Auckland Council already has a maintenance programme for this road corridor for vegetation control. That would have the benefit of sightline maintenance/improvement, pest management and landscape outcomes. The management of the non-indigenous species assisting with biosecurity with vegetation trimming will likely benefit the indigenous species in this area.

In my opinion, regular monitoring of the vegetation, at around 6 monthly intervals, and remedial trimming as deemed necessary (likely efficiently done by an extendable cutting arm) will ensure sightlines are retained without the need for tree removal, particularly in light of Auckland Council's Auckland's Urban Ngahere (Forest) Strategy.

I trust this clarifies this matter.

Rob J Pryor
Director | Tuia Pito Ora NZILA Registered Landscape Architect

commute
TRANSPORTATION CONSULTANTS

4 Leek Street, Newmarket
PO Box 128259, Remuera 1541, Auckland
Ph. 09 869 2825
www.commute.kiwi

TECHNICAL MEMO

Project	362 Jones Road Drury
Subject	Section 92 Request for Information: BUN60440759 item 4(e)
From:	Leo Hills
Date	3 March 2025

1 INTRODUCTION

Further to our s92 responses, we understand the item 4(e) regarding a Pavement Impact Assessment (PIA) is still outstanding. The further response states:

> *"The AT database is showing 1694 to 1829 AADT with 8% HCV volume (146 HCV per day). The proposal would then seem to exceed the 182 (10%) thresholds of the ADT on Hunua Road if they are proposing to generate during the seasonal period up to 192 trips per day. This would then mean the proposal will sit around 10.49% ADT for HCV, exceeding the 10% threshold. Therefore, the PIA is required to understand the effects HCV would have on the pavement condition.*
>
> *The scope of the PIA should be from the site access up to the access of Winston Quarry on Hanua Rd. Can be discussed".*

2 REVIEW

In regard to the traffic volume on Hunua Road, Commute commissioned an automatic traffic count between Monday 18 March and Sunday 24 March 2024 as per the Traffic Assessment Report (TAR), Section 2.2. This recent traffic count was located at the site driveway and recorded an average volume of 1921vpd. The 10% threshold is therefore 192vpd.

Conversely the counts quoted in the response (1694 to 1829 AADT) have no additional information provided as to location / year of the counts. In this regard:

- We consider the "threshold" of a PIA should be average volume and not seasonal peak operating volume of the site. This is because the total trucks over the year is the critical measure in determining impact on the pavement not just at a peak time.
- The count we have used is both recent and was located at the site entrance and as such represents the most accurate volume at the site.

Accordingly, we consider the threshold for the PIA should be 192vph and this should be the threshold for the average trucks per hour over a yearly period.

Vance Hodgson

Subject: FW: 362 Jones Road Clean fill

From: Matt Ford (AT) <Matt.Ford@at.govt.nz>
Sent: Monday, 30 September 2024 12:13 pm
To: Leo Hills <leo@commute.kiwi>
Cc: Elmira Vatani (AT) <Elmira.Vatani@at.govt.nz>
Subject: RE: 362 Jones Road Clean fill

Hi Leo,

Have done some further consultation with our specialists and can give you an update.

1. Safety

Myself and others within AT have determined that yes it is difficult to ask you guys to widen sections of road which are already used by other parties.
However, you will be increasing the two-way traffic and associated risk for conflict and therefore some mitigation could be provided, including signs where truck movements are operating in opposing direction to the neighbouring quarry site and also provide further visibility assessments.

The worst case is on sheet 3-2 where opposing truck movements may get caught out, but this could be mitigated with signs and visibility.

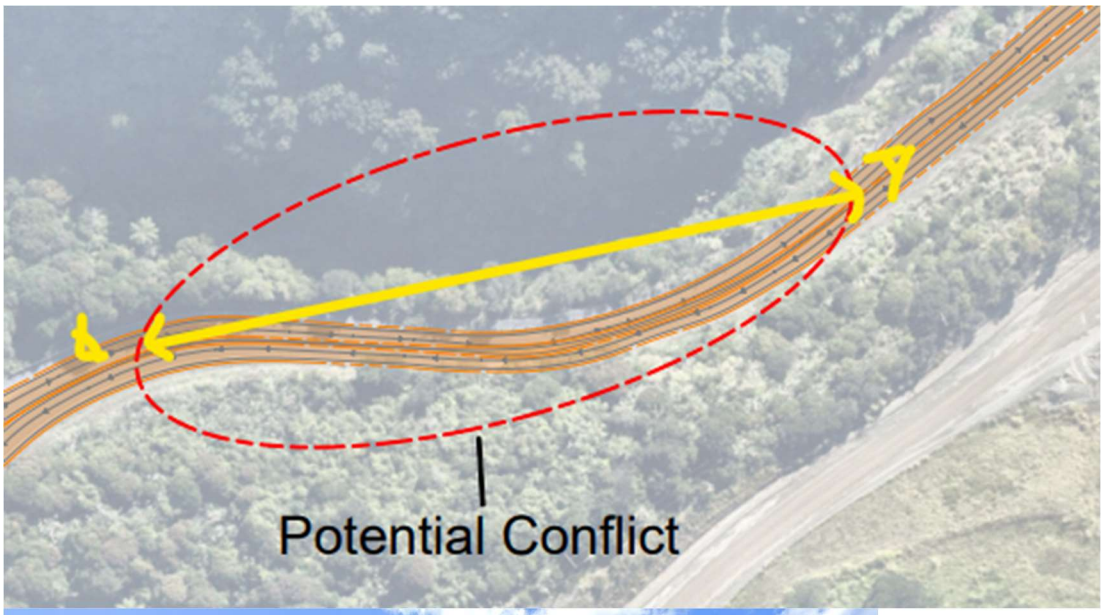
For the all the conflict points we would like:

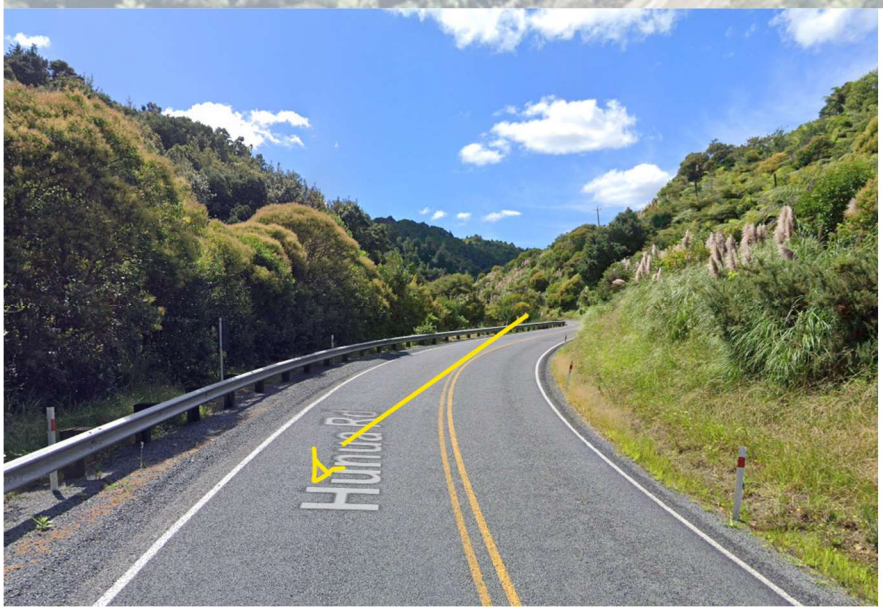
- We would like to see some further assessment for when there are two-way truck movements (from separate quarry operations) and what mitigating treatments are feasible because there may be side-swipe incidents, but we would expect them to be low speed and non-injury.
- Sightline assessment and how to improve the sightlines for all the conflict points.
- There also could be a possible risk for existing guardrails which would also be good if you could assess this to help us understand if they are at risk of being damaged at these points.
- We would be looking to add a monitoring condition to provide evidence periodically on safety and get a suitably qualified Transportation Engineer to report back into AT/AC.
- identify any other additional mitigation measures that you would deem feasible for you that is out of the box to help provide for a better safety outcome here.

Some further comments:

Sheet 3-1
Shows overlap for clearances but the wheel paths are just passing. With low speed and good visibility then two-way traffic is likely to negotiate past each other. This is narrow, but for two-way traffic will have to reduce speed.

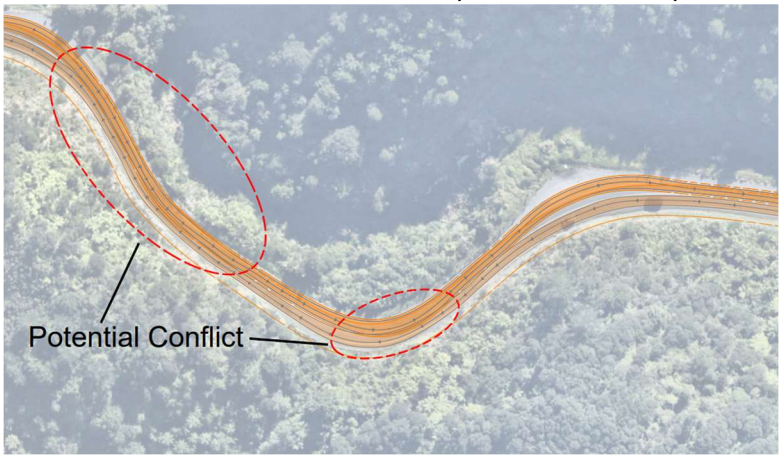
Sheet 3-2
Has quite significant overlap and could cause a potential two-way conflict with the Ardmore Quary truck movements. Since there is no way to coordinate the two operations, some mitigation may be necessary. We would be wanting road narrows signs (PW-43) and/or information sign (IG type white with black border) to warn truck drivers of the narrow section. We also would be keen to hear how the applicant would improve these sightlines and make sure trucks slow down appropriately.





Sheet 3-5

These are short sections with overlap, with reduced speeds then opposing truck movements should be okay.



Jones Road access
AT supports the widening at the site entry/exit as we think that this section from the site to the neighbouring quarry holds greater responsibility for this applicant.
Support this improvement for the turning movements directly to and from Hunua Road from Jones Road.

2. Freight network

We note that Future Connect is (where the Level 1B freight route comes from) is an aspirational planning tool. It is AT's network plan that identifies the Strategic Modal Networks (cycle, PT, walking, freight and general traffic) and the region's most critical challenges. It does not, however, propose any solutions (new projects) to these challenges and has no statutory weight. This is the role of the Regional Land Transport Plan (RLTP). The RLTP considers Future Connect outputs (among others), to help prioritise investments that are delivered through other AT programmes and projects, which will give effect to Future Connect.

3. Pavement

Pavement impact assessment is to be conducted same as to TIA up to nearest connection with major road.
This could be few hundreds metre of tens of kilometre. AT will do a judgement call on what the applicant needs to contribute once the TIA report is reviewed.

Jones Road is a long stretch of rural road and connects Hunua Road, where there are several quarries operating and we need to ask for the landfill routes – in percent of materials coming to site. Then we can make a judgement call how much it will impact.

Note that we will ask for PIA only when the new generated heavy vehicle volume exceeds more than 10% of the current level of traffic. In this case Section C – 1921 daily volumes (10% is 192 trips) given that the proposal will generate more than 10% (approx. 200 daily trips as mentioned) of the existing volumes for at least sections C and possibly B we would most likely be asking for PIA for these two sections of Hunua Road.

In terms of next steps if you could please do some more digging and provide those pieces of info that would be useful.
I suppose with this type of certainty you may be looking to lodge for consent. Open to having a chat some time this week if wish before lodgement.

Thanks again,

Ngā mihi

Matt Ford | Senior Development Planner
Network Operations Planning | Development Planning South
Customer and Network Performance
Auckland Transport
Matt.Ford@at.govt.nz | www.at.govt.nz

commute
TRANSPORTATION CONSULTANTS

4 Leek Street, Newmarket
PO Box 128259, Remuera 1541, Auckland
Ph. 09 869 2825
www.commute.kiwi

TECHNICAL MEMO

Project	362 Jones Road Drury
Subject	Section 92 Request for Information: BUN60440759 item 4(d e)
From:	Leo Hills
Date	28 March 2025

1 INTRODUCTION

Further to our s92 responses, we understand the item 4(d) relating to additional mitigation measures and 4(e) regarding a Pavement Impact Assessment (PIA) are still outstanding:

2 ITEM 4(D) ADDITIONAL MITIGATION

Part of the additional comment relating to this item states:

> *Further feedback from AT internal specialists has also been received regarding what additional measures would help improve safety along the bends where sightlines are short. These could form into conditions:*
>
> - *Digital warning signs that a vehicle is approaching the corner*
> - *Slow speed sign*
> - *Blind corner signage on both sides ahead of corners*
> - *Also thinking that conditioned smaller trucks be used so that the risk of overlap is reduced.*
> - *Truck safety briefings*
>
> ***Please review and advise if there are any mitigation measures proposed by the applicant***

As per the Section 7 of the Traffic Assessment there are some additional mitigation measures offered including:

- Road narrows signs either side of each section (PW-43) can be provided.
- All trucks to / from the site will be controlled by Scarbro (site operator)
- All Scarbro trucks to / from the site will be GPS monitored and are in constant communications
- Trucks exiting the site can therefore be advised of the nearest truck (via communication and potentially TV screen) and then alter their leaving time accordingly.

We also agree with the “Truck safety briefing” mitigation as suggested, however with the above measures in place we do not consider the remaining AT suggested measures to be warranted (although we have suggested alternatives signage)

4 Leek Street, Newmarket
PO Box 128259, Remuera 1541, Auckland
Ph. 09 869 2825
www.commute.kiwi

3 ITEM 4(E) PIA

The additional comment relating to this item states:

> *"The 5-day Average Daily Traffic (ADT) for the corridor was found to be 1,921 vehicles. Can Leo confirm what percentage of 1921 was HCV?*
>
> *For PIA requirements, if the number of daily heavies exceeds 10% then the PIA is required. I think there is a mistake about understanding the requirement. Its not if HCVs exceed the total daily traffic count e.g. 192 trip threshold (including regular cars and trucks) but if the HCVs the applicant proposes exceeds 10% of the daily HCV volumes*
>
> *They only mentioned that Heavy Commercial Vehicles (HCV) represented 25% of total traffic over the week but didn't show what the daily HCV recorded was*
>
> *I think the Applicant has misinterpreted as the 10% threshold being 192 trips which includes ADT. I imagine that the percentage of HCV existing is already close to 10% so need to see if the 54 truck trips proposed goes over the 10% of HCVs".*

In regard to the 10% threshold Auckland Transport provided and email to me on Monday, 30 September 2024 which clearly outlined the PIA requirements. The email stated:

> *"Note that we will ask for PIA only when the new generated heavy vehicle volume exceeds more than 10% of the current level of traffic. In this case Section C – 1921 daily volumes (10% is 192 trips) given that the proposal will generate more than 10% (approx. 200 daily trips as mentioned) of the existing volumes for at least sections C and possibly B we would most likely be asking for PIA for these two sections of Hunua Road"*

As such, the previous advice from Auckland Transport was very clear that the PIA threshold was 10% of the TOTAL volume and not just HCV's. It is this advice that we have relied on in the previous responses.

Regardless of this we have reviewed the automatic traffic count as requested. This recent traffic count was located at the site driveway and recorded an average volume of 1921vpd. Of this 27.3% were HCV as per Figure 1 below (taken directly from the automatic count).

Figure 1: Traffic Count

5 Day			
ADT (Vehicles per Day)			%HCV
Eastbound	Westbound	Both	Both
947.0	974.0	1,921.0	27.3%

The HCV percentage translates to an average volume of 524 vpd with the revised threshold calculation of 10% of this being 52 vpd.

commute
TRANSPORTATION CONSULTANTS

4 Leek Street, Newmarket
PO Box 128259, Remuera 1541, Auckland
Ph. 09 869 2825
www.commute.kiwi

In this regard we consider the “threshold” of a PIA should be average volume and not seasonal peak operating volume of the site. This is because the total trucks over the year is the critical measure in determining impact on the pavement not just at a peak time.

As per the original Traffic Assessment, the expected truck volumes equates to 54 truck movements per day (in and out) on average or 2 vph above the threshold. Should this be an issue, we understand the applicant is willing to reduce the average to truck movements to below the threshold.

Revision notes:

Rev:	Date:	Notes:

Drawn by:
LH
J002929

Client:
362 JONES ROAD, HUNUA

Project:
362 JONES ROAD, HUNUA

Drawing Title:
SIGNAGE

Date:
4 April 2025

Scale @ A3:
1:4000

Revision:
A

commute
TRANSPORTATION CONSULTANTS

Figure:
1